68th Annual International Congress
Of the
Egyptian Orthopaedic Association

28 November - 01 December, 2016
Intercontinental- City Stars Hotel,
Cairo - Egypt

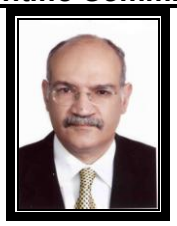
PROGRAM
2016

Congress Board

EOA & Congress President
Prof. Alaa ElZoheiry

EOA & Congress Treasurer
Prof. Hani El Mowafi

Head of Scientific Committee



Prof. Gamal A. Hosny

Congress General Secretaries

Prof. Abdelsalam Eid

Prof. Mahmoud El Rosasy

Dear EOA Congress participants,

It's our honour to invite you to the 68th annual international congress of the Egyptian Orthopaedic Association held in Cairo from 28 November to 01 December, 2016.

The EOA Congress has been known worldwide as a rich, productive and true international gathering of the most well known names in the world of orthopaedic surgery throughout its long & successful history.

The most productive & effective way to acquire knowledge is through exchange of knowledge and experience among different Orthopaedic experts.

Our social program is fashioned to satisfy participants and their accompanying guests desires.

We are sure you will enjoy staying in Cairo, where the glory and history of the ancient Egypt merges with the beauty and wonders of the modern state.

We look forward to welcoming you in the EOA Congress.

EGYPTIAN ORTHOPAEDIC ASSOCIATION BOARD

Prof. Alaa El Zoheiry	President
Prof. Abdelsalam Eid	Secretary General
Prof. Hani El Mowafi	Treasurer
Prof. Ahmed Kholeif	Member
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Prof. Mohamed Fadel	Member
Prof. Osama Hegazy	Member
Prof. Talaat Ezz El-Din	Member

EGYPTIAN ORTHOPAEDIC ASSOCIATION
PREVIOUS PRESIDENTS

Prof. Mohamed Kamel Hussein	**1948 - 1967**
Prof. Gawad Hamada	**1968 - 1969**
Prof. Abdel-Hay El-Sharkawy	**1970 - 1971**
Prof. Hussein K. Hassab	**1972 - 1973**
Prof. Mohamed S. Mehrez	**1974 - 1975**
Prof. Ahmus K. El-Hamamsy	**1976 – 1977**
Prof. Mansour Shawky	**1978 - 1979**
Prof. Mohamed Abdalla	**1980 - 1981**
Prof. Abdou Sallam	**1982 - 1983**
Prof. Amin Reda	**1984 - 1985**
Prof. Mahmoud Akl	**1986 - 1987**
Prof. Hussein Abdel-Fattah	**1988 – 1989**
Prof. Abdel-Hay Mashhour	**1989 – 1990**
Prof. El-Sayed Wahb	**1990 – 1991**
Prof. Fawzy Moustafa	**1991 – 1992**
Prof. Wael Mansour	**1992 – 1993**
Prof. Abdel-Salam Goumaa	**1993 – 1994**
Prof. Galal Zaki	**1994 – 1995**
Prof. Hassan El-Zaher	**1995 – 1997**
Prof. Farouk Youssef	**1997 – 1998**
Prof. Raafat H. Badawi	**1998 – 2001**
Prof. Mamdouh Zaki	**2001 – 2003**
Prof. Abdel-Rahaman Amer	**2003 – 2004**
Prof. Nabil Khalifa	**2004 - 2005**
Prof. Mohamed Shafik	**2005 - 2006**
Prof. M. Osama Hegazy	**2006 - 2007**
Prof. Hazem Abdel Azeem	**2007 - 2008**
Prof. Khamis El Deeb	**2008 - 2009**
Prof. Samir Zaki Kotb	**2009 - 2010**
Prof. Abdel Mohsen Arafa	**2010 - 2011**
Prof. Gamal Ahmed Hosny	**2011 - 2013**
Prof. Adel Adawy	**2013 - 2015**

Scientific Committee

Prof. Abdel Fatah Soud

Prof. Adel Ghonim

Prof. Adel Refaat

Prof. Ahmed Allam

Prof. Ali El Mofty

Prof. Ashraf Abdel Kafy

Prof. Essam El Shareif

Prof. Osama Farouk

Prof. Timour El-Husseini

ACCOMPANYING PERSON PROGRAM

TUESDAY 29/11/2016

10:00 am	***Trip to Pyramids will start at 10:00 am from hotel, lunch will be served during the trip.*** ***رحلة الي الاهرامات والغذاء بها وسوف تتحرك الأتوبيسات الساعة العاشرة صباحا***

WEDNESDAY 30/11/2016

10:00 am	***Trip to El Azhar park will start at 10:00 am from hotel, lunch will be served during the trip.*** ***رحلة إلي حديقة الازهر والغذاء بها وسوف تتحرك الأتوبيسات الساعة العاشرة صباحا***

THURSDAY 1/12/2016

10:00 am	***Trip to Felfala Village restaurant will start at 10:00am from hotel, lunch will be served during the trip.*** ***رحلة إلي قرية فلفلة بالهرم والغذاء بها وسوف تتحرك الأتوبيسات الساعة العاشرة صباحا***

عفواً: هذا البرنامج للمرافقين فقط وليس للمشتركين والاطفال فوق سن ٥ سنوات تذكرة كاملة.

SOCIAL PROGRAM

MONDAY 28/11/2016

06:00 pm	***Cocktail Reception at the Congress Venue*** For Participants and Accompanying Guests.

THURSDAY 1/12/2016

09:00 pm	***Gala Dinner & Official Closing Ceremony*** For Participants and Accompanying Guests. ***الحفل الختامي للمؤتمر.***

عفواً: هذا البرنامج يشمل حاملي الدعوات فقط من المشتركين و مرافقيهم

MONDAY 28/11/2016

- ***06:00 Opening Ceremony & welcome words***

- ***Lecture: "EOA history."***

  Prof. Alaa El Zoheiry (15min)

- ***Lecture: "Why we need more professionalism in medical education."***

  Prof. Wolf Mutschler (15min)

- ***Lecture: "Osseointegration."***

  Prof. Munjed Al Museris (15min)

- ***Lecture: "40years AO education history in Egypt."***

  Prof. Chris Van Der Werken (15min)

Welcome Reception & Get Together Party

الجمعية العمومية لجمعية جراحة العظام المصرية

- *تعقد الجمعية العمومية العادية لجمعية جراحة العظام المصرية في تمام الساعة ١٢صباحا يوم الثلاثاء الموافق ٢٠١٦/١١/٢٩ في القاعة الرئيسية للمحاضرات.*
- *حسب القانون يكون الاجتماع قانونياً بحضور الاغلبية المطلقة لأعضاء الجمعية الذين لهم حق حضور الجمعية العمومية وفي حالة عدم اكتمال العدد القانوني يؤجل الاجتماع لمدة ساعة ويعقد بعدد الحضور.*
- *حضور الجمعية العمومية حق لجميع الأعضاء العاملين الذين مضت علي عضويتهم مدة ٦ أشهر علي الأقل ومسددين لاشتراكات الجمعية حتي عام ٢٠١٦.*

جدول أعمال الجمعية العمومية العادية

١- كلمة افتتاحية للسيد أ.د رئيس الجمعية.

٢- تقرير السيد أ.د الأمين العام للجمعية عن نشاط الجمعية العام المنتهي (٢٠١٥-٢٠١٦).

٣- تقرير السيد أ.د أمين صندوق الجمعية للميزانية والحسابات الختامية وتقرير المراقب المالي عن العام المنتهي(٢٠١٥-٢٠١٦).

٤- عرض مشروع الموازنة التقديرية و خطة الجمعية للعام التالي (٢٠١٦-٢٠١٧).

٥- تعيين مراقب حسابات وتحديد اتعابه لعام ٢٠١٦ -٢٠١٧

٦- ما يستجد من اعمال.

وسكرتارية الجمعية تهيب بالسادة الزملاء الاهتمام بحضور جمعيتهم العمومية

EOA Rules and Regulation

1) Wearing badges is a must to attend all sessions and meetings.
2) Lectures materials must be deliverd to the data show team two hours in advance , no personal computer allowed.
3) Speakers must observe lecture timing as PA system will be turned off automatically.

- *برجاء الالتزام بارتداء البادج الخاص بالمؤتمر ولن يسمح بدخول المؤتمر من غير البادج.*
- *برجاء تسليم المحاضرات علي فلاشة لمسئول Data Show قبل موعد القاء المحاضرة بساعتين ولن يسمح باستخدام الكمبيوتر الشخصي لعرض المحاضرات.*
- *علي السادة المحاضرين برجاء الالتزام بالوقت المحدد لكل محاضرة وسوف يتم فصل الصوت اتوماتيكيا مع نهاية المدة الزمنية المحدده كما يحدث بجميع المؤتمرات العالمية.*

MONDAY,
NOVEMBER 28TH , 2016
(Workshops)

MONDAY, NOVEMBER 28TH , 2016

Internal Fixation Workshops

HALL (1) 10:00-03:30

Chairmans		**Prof. Alaa El Zoheiry** **Prof. Chris Van Der Werken** **Prof. Wolf Mutschler**	**Egypt** **Netherlands** **Germany**
Moderators		**Dr. Amr Azzam** **Dr. Mohamed Zaki** **Dr. Ashraf Abdel Aziz** **Dr. Amr El-Batouty**	
10:00	**10:30**	*Welcome and Safety Instructions*	
10:30	**11:30**	*Elastic Nail Fixation*	
11:30	**12:30**	*Distal Humerus fixation by LCP*	
12:30	**01:00**	**Coffee Break**	
01:00	**02:00**	*Trochanteric Femoral Fracture Fixation by PFN nail*	
02:00	**03:00**	*Proximal & Distal Tibial Fractures Fixation by Expert Tibial Nail*	
03:00	**03:30**	**Closing Remarks & End of the Day**	

MONDAY, NOVEMBER 28TH , 2016

	Knee Arthroscopy Workshop
HALL (2)	**10:00-03:00**
Moderator	**Prof. Adel Adawy**
Panel	**Abdel Samie Halawa** **El Sayed M. Bayomy** **Emad El Zoheiry** **Hazem Farouk** **Mohamed Salah**
⇒ **03:00**	**End of the Workshop**

MONDAY, NOVEMBER 28TH , 2016

Angular Deformities of the Knee Workshop

HALL (3) 10:00-03:00

Moderator	**Prof. Fergal Monsell** **Prof. Mahmoud El Rosasy**
Panel	**Abdel Salam Abdel Alim** **Ashraf Khanfour** **Hatem Kotb**
10:00- 02:00	- Patho- Mechanics & Consequences of Angular Deformities of the Knee. - Analysis & Measurement of Knee Deformities. - Osteotomy Techniques for correction of Knee Deformities - Acute vs. Gradual Deformity Correction. - High Tibial osteotomy using External & Internal Fixation.
Moderator	Prof. Ahmed Allam
02:00	Deformity correction and difficult fractures stabilization via monolateral frames. **Ahmed Allam**
⇒ **04:00**	**End of the Workshop**

MONDAY, NOVEMBER 28TH , 2016

Knee Arthroplasty Workshop

HALL (4) **10:00 - 03:00**

Moderator **Prof. Ayman Ebied**

10:00 **Revision Total Knee Arthroplasty**

- How to plan for your revision TKR
- Tibial Tubercle Osteotomy
- Bone defects: How to overcome
- Metal augments vs sleeves

02:30 **The Art of Knotless Suturing**

⇒ **03:00** **End of the Workshop**

MONDAY, NOVEMBER 28TH , 2016

		Foot & Ankle Workshop
HALL (5)		**10:00 - 03:00**
Moderator		**Prof. Hani El Mowafi** **Prof. Wagih Moussa**
10:00	**12:30**	**Scarf Osteotomies** **Ahmed Kholief** **Antonio Viladot Voegeli** **Ossama El Shazly**
01:30	**03:00**	**Calcaneal Osteotomies** **Hani El Mowafi** **Marco Guelfi** **Wagih Moussa**
⇒	**04:00**	**End of the Workshop**

MONDAY, NOVEMBER 28TH , 2016

	Spine Trauma Life Support Course
HALL (6)	**10:00 - 03:00**

Moderator	**Prof. Abdel Fattah Saoud** **Prof. Hany Victor**

⇒	**03:00**	**End of the Workshop**

MONDAY, NOVEMBER 28TH , 2016

SICOT Trainee Day Program	
HALL (7)	**10:00-03:00**
Chairmen	**Prof. Essam Elsherif** **SICOT National Delegate of Egypt**
Moderator	**Dr. Ahmed Hazem Abdel Azeem**
⇒ **04:00**	**End of the Workshop**

MONDAY, NOVEMBER 28TH , 2016

	Hand Workshop
HALL (8)	**10:00 - 03:00**

Moderator	**Prof. Abdel Hakim Abdallah** **Prof. Magdy Nabil**

Flexor Tendon Repair

⇒	**03:00**	**End of the Workshop**

SCIENTIFIC

PROGRAM

TUESDAY,
NOVEMBER 29TH , 2016

TUESDAY, NOVEMBER 29TH , 2016

Session 1	Papers
HALL (A)	09:00-10:15

Chairmen	**Prof. Hatem Abdel Rahman** **Prof. Magdy El Dakhakhni** **Prof. Mamdoh Zaki**

1)	09:00	Accuracy of magnetic resonance studies in the detection of chondral and labral lesions in femoroacetabular impingement: systematic review and meta-analysis **Ahmed Mostafa Saied**	**Egypt**
2)	09:07	Management of Avascular Necrosis of the Femoral Head by Drilling and injection of Concentrated Bone Marrow **Hany Fayek Abdou Bakhit**	**Egypt**
3)	09:14	Leukocyte esterase analysis in the Diagnosis of Periprosthetic Joint Infection **Ahmed Ibrahim Enan**	**Egypt**
4)	09:21	Wound closure in flexion versus extension in total knee arthroplasty, Short term followup **Tamer Madkour**	**Egypt**
5)	09:28	Core Decompression augmented with Autogenous Bone Grafts for Osteonecrosis of the femoral Head. **Osman abdellah Mohamed**	**Egypt**
6)	09:35	Early total hip replacement for fractures of the acetablum **Sameh Mohammed Marei**	**Egypt**
7)	09:42	Reliability of using A-P plain radiographs for postoperative measurement of acetabular cup anteversion after THA **Mohammad Ali Alzohiry**	**Egypt**
8)	09:49	Outcome of cemented bipolar as primary management of comminuted unstable Intertrochanteric fracture femur in elderly Sudanese patients. **Mohamed Hamed Awad El Sayed**	**Sudan**
9)	09:59	Knee Joint Reconstruction After Hemiarticular Resection Using Pedicled Patella and Vascularized Fibular Graft **Mohamed Mostafa Kotb**	**Egypt**
⇒	10:09	**Discussion**	

TUESDAY, NOVEMBER 29TH , 2016

Session 2	Papers
HALL (B)	09:00-10:15

Chairmen		**Prof. Ahmed Allam** **Prof. Mohamed Fadel** **Prof. Mahmoud Ezz Eldin**
10)	**09:00**	MIPPO may be preferable to PFNA in treating Unstable Pertrochanteric fractures **Mohamed Ali** **Egypt**
11)	**09:07**	Illizarov external fixation for trochanteric femoral fractures in high risk patients **Mohammed Anter Meselhy** **Egypt**
12)	**09:14**	Evaluation of results of internal fixation of symphyseal injuries using novel plate design ; Assiut symphyseal plate **Mohamed Yahya Abdel Azeem** **Egypt**
13)	**09:21**	Non vascularized Double-barrel fibular graft for the reconstruction of metaphyseal supracondylar fracture of the femur **Tamer Abdel Mawla** **Egypt**
14)	**09:28**	Avoiding rotational malalignment after inter-medullary fixation of fractures of the femur by using the profile of the contralateral lesser trochanter as a reference. **Ibraheem Mostafa Abbas** **Egypt**
15)	**09:35**	Reliability of CT- based three column classification of tibial plateau fractures compared to Schatzker's and OTA /AO classification **Salah Senosy** **Egypt**
16)	**09:42**	Management of tibial non-union with bone loss by Ilizarov technique **Hefzulla MH. Abdulla** **Yemen**
17)	**09:52**	Augmented Locked Plate Fixation Of Complex Distal Radial Fractures. **Mokhtar Abdul Azeem** **Egypt**
18)	**10:02**	Unstable distal end radius fracture. **Ahmed Allam** **Egypt**
⇒	**10:12**	**Discussion**

TUESDAY, NOVEMBER 29TH , 2016

Session 3	Papers
HALL (C)	09:00-10:15

Chairmen		**Prof. Bahaa Kornah** **Prof. Hassan Mohamed Ali** **Prof. Yassin El Ghoul**
19)	**09:00**	Posterior Short-Segment Pedicle Instrumentation without Fusion for Thoracolumbar Burst Fracture **Emad Abdelhadi** **Egypt**
20)	**09:08**	Pedicle subtraction osteotomy for correction of spinal sagittal imbalance in dorso-lumbar spine **Mohamed Moawad Abdelmotaleb** **Egypt**
21)	**09:16**	Minimally invasive spine osteosynthesis (miso) technique for dorsolumbar spine fractures **Hesham Mohamed Safwat Ibrahim** **Egypt**
22)	**09:24**	Vertebral Column Resection in Management of Severe Spinal Deformities; Outcome and Complications **Mohammed Khalid Saleh** **Egypt**
23)	**09:32**	The effectiveness of posterior cervical surgeries in multi-segmental cervical myelopathy with neutral or kyphotic alignment. a systematic review. **Mohamed Abdelrazek** **Egypt**
24)	**09:40**	Posterior Interbody Fusion versus Posterolateral Fusion for Treatment of Segmental Lumbar Spinal Instability **Sherif Alagamy** **Egypt**
25)	**09:48**	Preventing Proximal Adjacent Level Kyphosis With Strap Stabilization **Khaled Zaghloul** **Egypt**
26)	**09:56**	Major and Minor Complications of PVCR in Management of Severe Spinal Deformities **Mohammed Khalid Saleh** **Egypt**
27)	**10:04**	Matched Comparative Study Between ACDF and Laminoplasty For 2-3 Levels Cervical Myelopathy, Neurological Outcome and Late Kyphosis **Mohamed Abdelrazek** **Egypt**
⇒	**10:12**	**Discussion**

TUESDAY, NOVEMBER 29TH , 2016

Session 4	Spine
HALL (D)	09:00-10:15

Chairmen	**Prof. Gad Ragheb** **Prof. Hany Ezzat** **Prof. Tony Tannoury**

28)	**09:00**	Minimally Invasive option for Degenerative Scoliosis. **Tony Tannoury**	**USA**
29)	**09:20**	Spinal stenosis **Hany Ezzat**	**Egypt**
30)	**09:40**	Cervical Sagittal deformities correction. **Tony Tannoury**	**USA**
⇒	**10:00**	**Discussion**	

TUESDAY, NOVEMBER 29TH , 2016

Session 5	Arthroplasty
HALL (A)	10:15-11:30

Chairmen	**Prof. El Sayed Morsi** **Prof. Per Kjaersgaard-Andersen** **Prof. Timour El-Husseini**

31)	**10:15**	Obesity and total joint replacement **Per Kjaersgaard-Andersen**	**Denmark**
32)	**10:30**	The Good, The Bad, and The Ugly, AKA Jumbo Cup **Timour El-Husseini**	**Egypt**
33)	**10:45**	Mini approaches for THA. Where we are today **George Macheras**	**Greece**
34)	**11:00**	Total hip arthroplasty instability **Theofilos Karachalios**	**Greece**
⇒	**11:15**	**Discussion**	
⇒	**11:30**	**Coffee Break**	

TUESDAY, NOVEMBER 29TH , 2016

Session 6

Patellofemoral Course

HALL (B) 10:15-11:30

Chairmen	**Prof. Abdel Salam Gomaa** **Prof. Maher El Assal** **Prof. Maged Samy**

35)	**10:15**	Anatomy and biomechanics of the PF joint. **Mohamed Gomaa**	**Egypt**
36)	**10:25**	Clinical examination of the PF joint **Akram Eldawoody**	**Egypt**
37)	**10:35**	PF imaging **Maged Samy**	**Egypt**
38)	**10:45**	Anterior knee pain **Simon Donell**	**UK**
39)	**11:00**	First time lateral patellar dislocation. What to do? **Petri Sillanpaa**	**Finland**
40)	**11:15**	Recurrent lateral patellar instability: treatment strategy. **Elizabeth Arendt**	**USA**
⇒	**11:30**	**Coffee Break**	

TUESDAY, NOVEMBER 29TH , 2016

Session 7 HALL (C)	Symposium (Osseointegration) 10:15-11:30

Chairmen	**Prof. Galal Kazem** **Prof. Hassan El Zaher** **Prof. Mahmoud El Rosasy**

41)	**10:15**	Osseointegration for Amputees – The Journey **Munjed Al Muderis** **Australia**
42)	**10:35**	Comparison between outcome of rehabilitation program post Osseointegration prosthesis versus socket prosthesis. **Alaa Balbaa**
43)	**10:55**	Direct Anterior Approach without traction table. **Munjed Al Muderis** **Australia**
⇒	**11:15**	**Discussion**
⇒	**11:30**	**Coffee Break**

TUESDAY, NOVEMBER 29TH , 2016

Session 8 HALL (D)	LIPTIS Symposium (Vaxato® - Dorofen®) 10:15-11:30
Chairmen	**Prof. Abdel Rahman Amer** **Prof. Adel Adawy** **Prof. Alaa El Zoheiry** **Prof. Gamal Hosny**
10:15	Target Specific Oral Anticoagulant in Orthopaedic Surgeries (Rivaroxaban in Focus) **Mahmoud El-Sebai** **Egypt**
10:45	**Vaxato®**, the Trusted Name in DVT Prevention **Dorofen®**, Overcoming Osteoarthritis Disability **Sharif Omar** **USA**
11:15	**Discussion**
⇒ **11:30**	**Coffee Break**

TUESDAY, NOVEMBER 29TH , 2016

Session 9	Arthroplasty	
HALL (A)	12:00-01:15	
Chairmen	**Prof. Amr Khairy** **Prof. Ibrahim El Ganzoury** **Prof. Lotfy Younes**	
44)	**12:00**	Clinical outcome measures in total hip and knee arthroplasty **Theofilos Karachalios** **Greece**
45)	**12:15**	Highlighted outcomes of the Nordic Hip Arthroplasty Registries **Per-Kjaersgaard Andersen** **Denmark**
46)	**12:30**	TM in acetabular reconstruction **Ibrahim El Ganzoury** **Egypt**
47)	**12:45**	THA after failed fractures of the acetabulum **Hazem Abdel Azeem** **Egypt**
⇒	**01:00**	**Discussion**
⇒	**01:15**	**General Assembly of EOA**
⇒	**02:30**	**Lunch**

TUESDAY, NOVEMBER 29TH , 2016

Session 10	Patellofemoral Course	
HALL (B)	12:00-01:15	
Chairmen	**Prof. Gamal Hosny Abdel Maksoud** **Prof. Hesham El Kady** **Prof. Hossam Nagi**	
48)	**12:00**	MPFLR in the skeletally mature. How I do it? **Karl Fredrik Almqvist** **BELGIUM**
49)	**12:20**	MPFLR in the skeletaly immature. How I do it? **Petri Sillanpaa** **Finland**
50)	**12:40**	Lateral lengthening or release **Ashraf Abdelkafy** **Egypt**
51)	**12:50**	When to add a bony procedure to your MPFLR? **Elizabeth Arendt** **USA**
⇒	**01:10**	**Discussion**
⇒	**01:15**	**General Assembly of EOA**
⇒	**02:30**	**Lunch**

TUESDAY, NOVEMBER 29TH , 2016

Session 11	Pediatric	
HALL (C)	12:00-01:15	
Chairmen	**Prof. Abulfotooh Eid** **Prof. Nabil Abdel Moneem** **Prof. Osama Hegazy**	
52)	**12:00**	30 years of ESIN (Elastic Stable Intramedullary Nailing) in children **Theddy Slongo** **Switzerland**
53)	**12:20**	Level 1 Paediatric Trauma Care in UK **Fergal Monsell** **UK**
54)	**12:40**	Treatment of femoral fractures in older children; what option we have when ESIN comes at its limits? **Theddy Slongo** **Switzerland**
⇒	**01:00**	**Discussion**
⇒	**01:15**	**General Assembly of EOA**
⇒	**02:30**	**Lunch**

TUESDAY, NOVEMBER 29TH , 2016

Session 12	OCTOBER PHARMA Symposium
HALL (D)	12:00-01:15

Chairmen	**Prof. Adel Adawy** **Prof. Alaa El Zoheiry** **Prof. Aly El Mofty**

	12:00	Gout Management (Updated) **Gamal Hosny**	**Egypt**

⇒	**01:00**	**Discussion**
⇒	**01:15**	**General Assembly of EOA**
⇒	**02:30**	**Lunch**

TUESDAY, NOVEMBER 29TH , 2016

Session 13	Arthroplasty
HALL (A)	03:30-04:45

Chairmen	**Prof. Akram Hammad** **Prof. Adel Shafik** **Prof. Tarek El Khadrawy**

55)	**03:30**	Complex primary total hip arthroplasty **Mez Acharya**	**UK**
56)	**03:45**	Clinical significance of different tests for diagnostics of periprosthetic infection. **Plamen Kinov**	**Bulgaria**
57)	**04:00**	Acute total hip arthroplasty for acetabular fractures **Mez Acharya**	**UK**
58)	**04:15**	Dual mobility cups after fractures of the femoral neck in the elderly **Wael Samir**	**Egypt**
⇒	**04:30**	**Discussion**	

TUESDAY, NOVEMBER 29TH , 2016

Session 14

Patellofemoral Course

HALL (B) **03:30-04:45**

	Chairmen	**Prof. Elizabeth Arendt** **Prof. Mohamed El Tabie** **Prof. Moheb Fadel**	
59)	**03:30**	Trochlear dysplasia. **Petri Sillanpaa**	**Finland**
60)	**03:45**	Trochleoplasty. When and how? **Simon Donell**	**UK**
61)	**04:00**	Is there a place for cartilage repair in the PF joint? **Karl Fredrik Almqvist**	**Belgium**
62)	**04:15**	Complications of PF surgery. **Elizabeth Arendt**	**USA**
⇒	**04:30**	**Discussion**	

TUESDAY, NOVEMBER 29TH , 2016

Session 15	Trauma
HALL (C)	03:30-04:45

Chairmen	**Prof. Aly El Zawahry** **Prof. Emad Halawa** **Prof. Mohamed Bahy El Shafie**

63)	**03:30**	Osteoporotic fractures; the magnitude of the problem **Chris Van der Werken**	**Netherlands**
64)	**03:45**	Fragility fractures of the pelvis. A new surgical challenge **Pol M. Rommens**	**Germany**
65)	**04:00**	Biphosphonate associated fractures: a new challenge? **Martin Hessmann**	**Germany**
66)	**04:15**	The ilioinguinal approach. My preferred anterior approach to the acetabulum **Pol M. Rommens**	**Germany**
⇒	**04:30**	**Discussion**	

TUESDAY, NOVEMBER 29TH , 2016

Session 16	AMGEN Symposium
HALL (D)	03:30-04:45

Chairmen	**Prof. Abdel Rahman Amer** **Prof. Adel Adawy**

	03:30	Management of osteoporotic fractures. **Abdel Fatah Soud** — **Egypt**
⇒	**04:30**	**Discussion**
⇒	**04:45**	**Change Break**

TUESDAY, NOVEMBER 29TH , 2016

Session 17	Arthroplasty
HALL (A)	04:45-06:00

Chairmen	**Prof. Hassan El Husseini** **Prof. Mostafa Abdel Khalik** **Prof. Raouf El Abassy**

67)	**04:45**	Principles of revision hip surgery. **Mez Acharya**	**UK**
68)	**05:00**	Long term results of impaction bone grafting using a synthetic graft (Apapore) in revision hip surgery. **Sherif Abouel-Enin**	**UK**
69)	**05:15**	Uncemented femoral revision with a taper stem with distal diaphyseal fixation. **Plamen Kinov**	**Bulgaria**
70)	**05:30**	Reconstruction of severe acetabular defects with 3D printed titanium acetabular cups. **Sherif Abouel-Enin**	**UK**
⇒	**05:45**	**Discussion**	
⇒	**06:00**	**End of the Day**	

TUESDAY, NOVEMBER 29TH , 2016

Session 18	Patellofemoral Course
HALL (B)	04:45-06:00

Chairmen	**Prof. Ibrahim Mostafa** **Prof. Hamed El Gohary** **Prof. Karl Fredrik Almqvist**

71)	**04:45**	Patellofemoral osteoarthritis and indications for arthroplasty **Simon Donell**	**UK**
72)	**05:05**	Patellofemoral arthroplasty: technical notes. **Elizabeth Arendt**	**USA**
73)	**05:25**	AMZ of the tibial tuberosity **Ayman Ebeid**	**Egypt**
74)	**05:35**	Partial lateral facetectomy in the degenerative PF joint. **Karl Fredrik Almqvist**	**Belgium**
⇒	**05:55**	**Discussion**	
⇒	**06:00**	**End of the Day**	

TUESDAY, NOVEMBER 29TH , 2016

Session 19	Trauma
HALL (C)	04:45-06:00

Chairmen	**Prof. Emad Eldin Esmat** **Prof. Safwat Shalaby** **Prof. Samy El Zahar**

75)	**04:45**	Emergency treatment of pelvic ring injuries with hemodynamic instability. **Pol M. Rommens**	**Germany**
76)	**05:00**	Management of severe pelvic fracture. **Martin Hessmann**	**Germany**
77)	**05:15**	Classification of acetabular fractures. How to analyze conventional X-rays and CT-pictures? **Pol M. Rommens**	**Germany**
78)	**05:30**	Pelvic fractures; emergency management **Chris Van der Werken**	**Netherlands**
⇒	**05:45**	**Discussion**	
⇒	**06:00**	**End of the Day**	

TUESDAY, NOVEMBER 29TH , 2016

Session 20	Foot
HALL (D)	04:45-06:00

Chairmen	**Prof. Antonio Viladot Voegeli** **Prof. Gamal El Adl** **Prof. Hani El Mowafi**

79)	**04:45**	Hallux Rigidus: Classification and Treatment Algorithm. **Antonio Viladot Voegeli**	**Spain**
80)	**05:00**	The role of arthroscopy in hallux rigidus. **Marco Guelfi**	**Italy**
81)	**05:15**	Results and Complications of Ankle Arthrodesis **Antonio Viladot Voegeli**	**Spain**
82)	**05:30**	Mechanical central Metatarsalgia. Surgical Criteria. **Antonio Viladot Voegeli**	**Spain**
⇒	**05:45**	**Discussion**	
⇒	**06:00**	**End of the Day**	

WEDNESDAY,
NOVEMBER 30TH , 2016

WEDNESDAY, NOVEMBER 30TH , 2016

Session 21	Papers
HALL (A)	09:00-10:15

Chairmen	**Prof. Adel Khamis** **Prof. Hesham El Mowafi** **Prof. Mahmoud El Rosasy**

83)	**09:00**	Short term functional and radiological outcomes of valgus femoral osteotomy in treatment of Perthes disease **Shady Mahmoud**	**Egypt**
84)	**09:07**	Can platelet-rich plasma shorten the consolidation phase of distraction osteogenesis? An experimental study **Barakat El-Alfy**	**Egypt**
85)	**09:14**	complex deformity by simple technique **Sameh Al Safty**	**Egypt**
86)	**09:21**	Ilizarov distraction histogenesis in relapsed club foot **Mohamed Fadel**	**Egypt**
87)	**09:28**	Percutaneous high tibial corticotomy and casting for treating genu varum deformity in adolescents **Haytham Abdel-Moneim**	**Egypt**
88)	**09:35**	Neutral wedge osteotomy in the management of large angular deformities around the knee joint **Barakat El-Alfy**	**Egypt**
89)	**09:45**	Angular Deformities of Distal Femur in Adolescents: Correction by Open-Wedge Osteotomy and Simplified External Skeletal Fixation **Mahmoud El-Rosasy**	**Egypt**
90)	**10:55**	How we can reduce the external fixator time? Is the change to internal fixator an option? **Theddy Slongo**	**Switzerland**
⇒	**10:10**	**Discussion**	

WEDNESDAY, NOVEMBER 30TH , 2016

Session 22 HALL (B)	Symposium Hand (Fracture Distal End Radius) 09:00-10:15

Chairmen		**Prof. Adel Ghonim** **Prof. Aly El Mofty**
	09:00	**Panel:** **Abdel Hakim Abdallah** **Essam El Karef** **Hany Morsi** **Hassaan El Noiemany** **Magdy Nabil Morsy** **Yasser El Safoury**
⇒	**10:00**	**Discussion**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 23 HALL (C)	Papers Foot 09:00-10:15

Chairmen		**Prof. Aly Nagy** **Prof. El Shazly Saleh** **Prof. Samir Shaheen**
91)	**09:00**	Recurrent resistent Equinovarus Deformity in Arthrogryposis: Treatment by Talectomy and Modified Ilizarov External Fixator **Ashraf Atef Mahmoud** **Egypt**
92)	**09:08**	Hind-foot endoscopically assisted mini open treatment for Haglund's deformity **Waleed M. Ewais** **Egypt**
93)	**09:16**	Evaluation of Ilizarov Role in Correction of Relapsed Clubfoot **Moawed Farghly El-Adawy** **Egypt**
94)	**09:24**	A safe percutaneous repair of Achilles tendon ruptures **Emad Zayed** **Egypt**
95)	**09:32**	Single Incision Flexor Hallucis Longus Tendon Transfer in Chronic Achilles Tendon Rupture **Ahmed Mahmoud Badri** **Egypt**
96)	**09:40**	Reconstruction of extensive Achilles tendon defects in elderly with a modified Flexor hallucis longus tendon transfer **Ahmad El-Tantawy** **Egypt**
97)	**09:50**	Double column foot osteotomy to correct flexible valgus foot deformity in children with spastic cerebral palsy **Sherif Naseef Girgis Bishay** **Egypt**
98)	**10:00**	Arterial Tree Anomalies in Patients with Clubfoot An investigation carried out at Soba University Hospital University of Khartoum **Samir Shaheen** **Sudan**
⇒	**10:15**	**Change Break**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 24	Trauma	
HALL (D)	09:00-10:15	
Chairmen	**Prof. Hany El Mohamady** **Prof. Mahmoud Mabrouk** **Prof. Mohsen Mashhour**	
99)	**09:00**	MIPO technique for lower limbs fractures. **Rafid Yaseen** **Iraq**
100)	**09:15**	Outcome in Patients with Infected Nonunion of the Long Bones Treated with Reinforced Antibiotic Bone Cement Rod (RABC) **Harpal Singh Selhi** **India**
101)	**09:30**	Complex proximal tibia fractures; treatment dictated by soft tissue injury **Chris Van Der Werken** **Netherlands**
102)	**09:45**	Histopathology in Infected Nonunion: A New Diagnostic and Prognostic Modality. **Harpal Singh Selhi** **India**
⇒	**10:00**	**Discussion**
⇒	**10:15**	**Change Break**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 25	Knee	
HALL (A)	10:15-11:30	
Chairmen	**Prof. Adel Ghazal** **Prof. Ahmed Saied** **Prof. Hesham El kady**	
103)	**10:15**	Principles of total knee arthroplasty **Mez Acharya** — **UK**
104)	**10:30**	ORIF for Acute PCL Tibial Bony Avulsions **Hesham El kady** — **Egypt**
105)	**10:45**	Hoffa's fractures: How to approach? **Anup Agrawal** — **India**
106)	**11:00**	Biological ACL Reconstruction. **Ahmed Saied** — **Egypt**
⇒	**11:15**	**Discussion**
⇒	**11:30**	**Coffee Break**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 26	Hand	
HALL (B)	10:15-11:30	
Chairmen	**Prof. Essam El Karef** **Prof. Magdy Nabil Morsy** **Prof. Maged El Shenawy**	
107)	**10:15**	Radial Club Hand: Long term experience. **Prakash Kotwal** **India**
108)	**10:30**	Delayed Selective Neurotization for Restoration of Elbow and Hand Functions in Late Presenting Obstetrical Brachial Plexus Palsy **Mohamed Mostafa Kotb** **Egypt**
109)	**10:45**	Thumb Reconstruction **Prakash Kotwal** **India**
110)	**11:00**	Acquired and congenital upper extremity problems treated with ring fixators in children **Theddy Slongo** **Switzerland**
	11:15	**Discussion**
⇒	**11:30**	**Coffee Break**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 27	Foot	
HALL (C)	10:15-11:30	

Chairmen	**Prof. Anis Shiha** **Prof. Marco Guelfi** **Prof. Wagih Moussa**		
111)	**10:15**	Recent insights in anatomy, pathology and classification of tibialis posterior dysfunction. **Marco Guelfi**	**Italy**
112)	**10:30**	Arthroscopic ankle fusion: tips and tricks **Wagih Moussa**	**UK**
113)	**10:45**	Medial Sliding Osteotomy in the treatment of TP dysfunction. **Marco Guelfi**	**Italy**
114)	**11:00**	Chevron technique in the treatment of Hallux valgus: undercorrection. **Marco Guelfi**	**Italy**
	11:15	**Discussion**	
⇒	**11:30**	**Coffee Break**	

WEDNESDAY, NOVEMBER 30TH , 2016

Session 28	LILLY Symposium Osteoporosis Management A New Horizon
HALL (D)	10:15-11:30

Chairmen	**Prof. Adel Adawy** **Prof. Alaa El Zoheiry**		
	10:15	Resistant Nonunion – A New Strategy.	
		Gamal Hosny	**Egypt**
	10:45	Osteoporosis Journey – Key Highlights.	
		Bassel El Zorkany	**Egypt**
⇒	**11:15**	**Discussion**	
⇒	**11:30**	**Coffee Break**	

WEDNESDAY, NOVEMBER 30TH , 2016

Session 29	Pediatric	
HALL (A)	12:00-01:15	
Chairmen	**Prof. Abdel Sabour Ghenim** **Prof. Aly Zin El Abddin** **Prof. Khamis El Deeb** **Prof. Maged Mostafa**	
115)	**12:00**	What is the difference between clinical and intraoperative stability in SCFE? **Theddy Slongo** **Switzerland**
116)	**12:15**	8 plate in Syndromes. **Gamal Hosny** **Egypt**
117)	**12:30**	30 years of modified Dunn procedure in SCFE. **Theddy Slongo** **Switzerland**
118)	**12:45**	The Orthopaedic consequences of Meningococcal septicaemia. **Fergal Monsell** **UK**
⇒	**01:00**	**Discussion**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 30	Upper Limb	
HALL (B)	12:00-01:15	
Chairmen	**Prof. Abdel Hakim Abdallah** **Prof. Aly El Mofty** **Prof. Hany Morsi**	
119)	**12:00**	Kienbock's Disease: The evolution of Treatment **Prakash Kotwal** **India**
120)	**12:15**	Surgical protocols for distal radial fractures. **Anup Agrawal** **India**
121)	**12:30**	Carpal instability, overview. **Abdelsalam Eid** **Egypt**
122)	**12:40**	Management of Radial Head Fractures: To fix or replace. **Anup Agrawal** **India**
123)	**12:55**	Results of cementless total elbow arthroplasty (TEA) using the Discovery® elbow system at a mean follow up of 57.6 months. **Ahmed Abdelwahab Elsheikh** **UK**
	01:05	Elbow Terrible Triad, Treatment Protocol and Outcome **Mokhtar Abdul Azeem** **Egypt**
⇒	**01:15**	**Change Break**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 31	Foot	
HALL (C)	12:00-01:15	
Chairmen	**Prof. Ahmed Shama** **Prof. Chris Van Der Werken** **Prof. Kamal El Gaafary**	
124)	**12:00**	Management of ankle fractures in the elderly; hints and tricks **Chris Van Der Werken** **Netherlands**
125)	**12:15**	Calcaneus fractures tips and tricks. **Wagih Moussa** **UK**
126)	**12:30**	Complex talus fractures and extrusion. **Chris Van Der Werken** **Netherlands**
127)	**12:45**	Operative treatment of Os Calcis fractures – A strict management protocol can produce good long-term results **Mohammed Diab** **UK**
128)	**12:55**	Pilon fractures; changing concept. **Chris Van Der Werken** **Netherlands**
⇒	**01:10**	**Discussion**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 32	MSD Symposium
HALL (D)	12:00-01:15

Chairmen	**Prof. Abd El Rahman Amer** **Prof. Adel Adawy**		
	12:00	Solving The Dilemma of Low Back Pain	
		Youssry El Hawary	**Egypt**
	12:25	Wrist Osteoarthritis	
		Hany Morsy	**Egypt**
	12:50	Efficacy Without Compromise Role of Etoricoxib in Chronic Inflammatory Conditions	
		Ashraf El Nahhal	**Egypt**
⇒	**01:15**	**Discussion**	

WEDNESDAY, NOVEMBER 30TH , 2016

Session 33	Hip	
HALL (A)	01:15-02:30	

Chairmen	**Prof. Alejandro Verdugo** **Prof. Eissa Ragheb** **Prof. Khaled Fawzy**		
129)	**01:15**	Arthroscopic Labral Reconstruction. **Alejandro Verdugo**	**USA**
130)	**01:30**	Impingement of the hip; also exists in children? **Theddy Slongo**	**Switzerland**
131)	**01:45**	Abductor tendon repairs. **Alejandro Verdugo**	**USA**
132)	**02:00**	Sacroiliac joint evaluation..are we doing enough? **Rafid Yaseen**	**Iraq**
133)	**02:15**	Bone marrow edema syndrome of the hip. treatment options. **Eissa Ragheb**	**Egypt**
⇒	**02:30**	**Lunch**	

WEDNESDAY, NOVEMBER 30TH , 2016

Session 34	Spine	
HALL (B)	01:15-02:30	
Chairmen	**Prof. Ashraf El Tabie** **Prof. Faisal Fahmy Adam** **Prof. Wael Koptan**	
134)	**01:15**	A Comprehensive Treatment for Osteoporotic Vertebral Compression Fractures. **Bambang Darwono** **Indonesia**
135)	**01:30**	Surgerical Treatment of intramedullary spinal cord tumors. **Oleksandr Voznyak** **Ukraine**
136)	**01:45**	Management of degenerative spine disease and scoliosis the new challenge to spine surgeons in developing countries. **Mohamed Maziad** **Egypt**
137)	**02:00**	Surgery Foramen magnum meningiomas. **Oleksandr Voznyak** **Ukraine**
⇒	**02:15**	**Discussion**
⇒	**02:30**	**Lunch**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 35	Foot	
HALL (C)	01:15-02:30	
Chairmen	**Prof. Hany Hefny** **Prof. Lotfy El Adwar** **Prof. Mohamed Morsy**	
138)	**01:15**	Hallux valgus; treatment algorithm **Wagih Moussa** — **UK**
139)	**01:30**	Hallux valgus surgery my evolution in the past 17 years. **Thanos Badekas** — **Greece**
140)	**01:45**	Overview of the management of Hallux rigiuds **Yasser Roshdy** — **Egypt**
141)	**02:00**	Hallux Valgus complication **Atef El Beltagy** — **Egypt**
⇒	**02:15**	**Discussion**
⇒	**02:30**	**Lunch**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 36	MULTICARE OSTEOARTHRITIS Symposium	
HALL (D)	01:15-02:30	
Moderator	Prof. Adel Adawy Prof. Alaa Elzoheiry	
	01:15	Osteoarthritis Management updates. Gamal Hosny — Egypt
	02:00	Discussion
⇒	02:30	Lunch

WEDNESDAY, NOVEMBER 30TH , 2016

Session 37	Arthroplasty
HALL (A)	03:30-04:45

Chairmen	**Prof. Ahmed Abdel Aal** **Prof. Hassan Hussein** **Prof. Yousry Emad**

142)	**03:30**	Chiari pelvic osteotomy for the dysplastic adolescent hips- long-term follow up. **Nina Djordjevic**	**Serbia**
143)	**03:45**	High congenital dislocation. The Greek experience **George Macheras**	**Greece**
144)	**04:00**	Management of severe femoral defects in revision total hip arthroplasty **Theofilos Karachalios**	**Greece**
145)	**04:15**	Blood transfusion and total joint replacement **Per Kjaersgaard-Andersen**	**Denmark**
146)	**04:30**	THA after failed trochanteric fractures **Ahmed Abel Aal**	**Egypt**
⇒	**04:45**	**Change Break**	

WEDNESDAY, NOVEMBER 30TH , 2016

Session 38	Spine	
HALL (B)	03:30-04:45	
Chairmen	**Prof. Essam El Sherif** **Prof. Mohamed Gamal** **Prof. Mohamed Maziad**	
147)	**03:30**	laminoplasty indications and technique and complications. **Tariq Sohail** **Pakistan**
148)	**03:45**	The Concept of MISS and Dynamic Stabilization. **Bambang Darwono** **Indonesia**
149)	**04:00**	Treatment of Spinal canal stenosis at elders by neural decompression and posterior dynamic stabilization. **Mohamed Maziad** **Egypt**
150)	**04:15**	Applied foraminal anatomy for endoscopic discectomy **Tariq Sohail** **Pakistan**
⇒	**04:30**	**Discussion**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 39	Foot	
HALL (C)	03:30-04:45	
Chairmen	**Prof. Adel Anwar** **Prof. Ahmed Kholief** **Prof. Essam El Abbasi**	
151)	**03:30**	Ankle Arthrodesis: indications and techniques. **Ahmed Kholief** — **Egypt**
152)	**03:45**	Cavovarus foot algorithm of treatment. **Thanos Badekas** — **Greece**
153)	**04:00**	Surgical treatment of the congenital club foot deformity. **Nina Djordjevic** — **Serbia**
154)	**04:15**	Reconstruction of diabetic foot and ankle. **Hani El Mowafi** — **Egypt**
⇒	**04:30**	**Discussion**
⇒	**04:45**	**Coffee Break**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 40	NOVARTIS Symposium
HALL (D)	03:30-04:45

Chairmen	**Prof. Adel Adawy** **Prof. Gamal Hosny**		
	03:30	Managing of Osteoarthritis	
		Alaa El Zoheiry	**Egypt**
⇒	**04:30**	**Discussion**	
⇒	**04:45**	**Change Break**	

WEDNESDAY, NOVEMBER 30TH , 2016

Session 41	Arthroplasty	
HALL (A)	04:45-06:00	
Chairmen	**Prof. Ashraf El Wakil** **Prof. Assem Tantawy** **Prof. Mahmoud Hafez**	
155)	**04:45**	Bone grafts in hip arthroplasty, back to the future **El Sayed Morsy** — **Egypt**
156)	**05:00**	Periprosthetic fractures around the hip **George Macheras** — **Greece**
157)	**05:15**	The low profile cemented cup **Ashraf El Wakil** — **Egypt**
158)	**05:30**	Reconstruction of the acetabulum with porous metal implants. **Plamen Kinov** — **Bulgaria**
159)	**05:45**	Long term follow up of cementless long stem in revision hip arthroplasty **Mohamed Asal** — **Egypt**
⇒	**06:00**	**End of the Day**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 42	Spine	
HALL (B)	04:45-06:00	
Chairmen	**Prof. El Moataz El Sabrout** **Prof. Mohamed El Meshtawy** **Prof. Mohamed Shafik**	
160)	**04:45**	Resection versus osteotomy for correction of rib deformity in scoliosis. **Panayotis N. Soucacos** — **Greece**
161)	**05:00**	Adult Spine Deformity (ASD). **Tariq Sohail** — **Pakistan**
162)	**05:15**	New Classification of Lumbar Degeneration based on 3 Columns Theory **Bambang Darwono** — **Indonesia**
163)	**05:30**	Spinal osteotomy indication and techniques. **Tariq Sohail** — **Pakistan**
⇒	**05:45**	**Discussion**
⇒	**06:00**	**End of the Day**

WEDNESDAY, NOVEMBER 30TH , 2016

Session 43	Foot
HALL (C)	04:45-06:00

Chairmen	**Prof. El Shenawy Mostafa El Shenawy** **Prof. Mohamed Gamal El Ashhab** **Prof. Salah Shawky**

164)	**04:45**	The use of musculoskeletal ultrasound in Orthopedics. **Thanos Badekas**	**Greece**
165)	**05:00**	Accessory Navicular Bone in Adolescents **Mohamed Hassan El Katatny**	**Kuwait**
166)	**05:10**	Arthroscopic management of OCD talus **Nasef M Nasef**	**Egypt**
167)	**05:20**	MTP Fusion **Ossama El Shazly**	**Egypt**
168)	**05:30**	Management of neglected ankle farctures **Mohamed Mokhatar**	**Egypt**
169)	**05:40**	Malunited fracture calcaneus simple technique **Ahmed Elhawary**	**Egypt**
⇒	**05:50**	**Discussion**	
⇒	**06:00**	**End of the Day**	

WEDNESDAY, NOVEMBER 30TH , 2016

Session 44	Shoulder
HALL (D)	04:45-06:00

Chairmen	**Prof. Aly El Guoshy** **Prof. Khaled Shohayb** **Prof. Magdy El Sayed**

170)	**04:45**	Diagnosis, Management & Recent Advances for Shoulder Disorders. **Vishal Sahni**	**UK**
171)	**05:00**	Unreduced posterior shoulder dislocation **Ravi Mittal**	**India**
172)	**05:15**	Diagnosis, Management & Recent Advances for Shoulder Instability. **Vishal Sahni**	**UK**
173)	**05:30**	Latarjet procedure **Ravi Mittal**	**India**
174)	**05:45**	Accuracy of US And MRI in Detection of Rotator Cuff Tears **Ahmed Elmorsy**	**UK**
⇒	**05:55**	**Discussion**	
⇒	**06:00**	**End of the Day**	

THURSDAY,
DECEMBER 1ST , 2016

THURSDAY, DECEMBER.1ST , 2016

Session 45 HALL (A)	AOTrauma Symposium Module 1: Proximal Femoral Fractures Part 1 09:00-10:00

Chairmen	**Prof. Alaa El Zoheiry** **Prof. Hazem Abdel Azeem** **Prof. Osama Farouk**		
	09:00	Welcome to AOTrauma Symposium	
		Femoral Neck Debates	
175)	**09:05**	Femur neck fractures; osteosynthesis versus prosthesis **Chris Van der Werken**	**Netherlands**
176)	**09:20**	Lag screws or DHS fixation **Ananda Nanu**	**UK**
177)	**09:30**	Hemi or total arthroplasty **Mahmoud Badran**	**Egypt**
178)	**09:40**	Failed fixation: redo or replace **Osama Farouk**	**Egypt**
	09:50	Q & A	
⇒	**10:00**	**Change Break**	

THURSDAY, DECEMBER.1ST , 2016

Session 46	Papers
HALL (B)	09:00-10:15

Chairmen		**Prof. Hani Basiony** **Prof. Mohamed Shabana** **Prof. Sherif Naseef Bishay**
179)	**09:00**	Hypovitaminosis D Among patients Admited With Hip fracture to a Level-1 Trauma Center in The Sunny upper Egypt: prevelance and associated correlates **Mohamed moustafa alaa el din** **Egypt**
180)	**09:07**	Early results of limb lengthening for congenital short femur **Belal Abdelrafea** **Egypt**
181)	**09:14**	Adductor tenotomy and Petrie cast application can effectively improve the range of hip joint in early stages of Perthes' disease. **Mohamed El-Areeny** **Egypt**
182)	**09:21**	Submuscular locked plate in fixation of pediateric fracture femur using cluster technique **Mohamed khaled Hassan** **Egypt**
183)	**09:28**	Crossed-entry pinning versus two-lateral-entry pinning for pediatric extension type III supracondylar fracture humerus. **Michael Girgis Waheeb Tawfeek** **Egypt**
184)	**09:35**	Perioperative difficulties and complications with the fixation of unstable paediatric pelvic ring injuries. **Mohamed Omar Kenawey** **Egypt**
185)	**09:42**	Lateral hamstring tendon transfer around the lateral gastrocnemius head and medial hamstring lengthening to correct crouch gait in diaplegic spastic cerebral palsy **Sherif Naseef Girgis Bishay** **Egypt**
186)	**09:50**	Bilateral True Congenital Dislocation of the Shoulder in a Neonate – A Case Report with Two Successful Treatment Modalities **Nariman Abol Oyoun** **Egypt**
187)	**10:00**	A unique case of melorheostosis presenting with two radiologically distinct lesions in the shoulder. **Ahmed Abdelwahab Elsheikh** **UK**
⇒	**10:10**	**Discussion**

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Session 47	World Spinal Column Society Review Course
	Guidelines of Management of Spinal Trauma
HALL (C)	09:00-10:15

Chairmen		**Prof. Abdel Fattah Saoud** **Prof. Abdel Mohsen Arafa** **Prof. Desmod Kwok**	
	09:00	Welcome note	
		Abdel Fattah Saoud	**Egypt**
188)	**09:10**	First Aid of spinal trauma patients.	
		Desmod Kwok	**Canada**
189)	**09:30**	Radiological examination of spinal trauma patients	
		Abdel Mohsen Arafa	**Egypt**
190)	**09:55**	Classification of traumatic cervical spine injuries.	
		Thanos Spiliotopoulos	**Greece**
⇒	**10:15**	**Change Break**	

THURSDAY, DECEMBER.1ST , 2016

Session 48	Papers
HALL (D)	09:00-10:15

Chairmen		**Prof. Ali Ibrahim** **Prof. Mohamed Reda** **Prof. Mohamed Yehia**
191)	**09:00**	transtibial near anatomic vs accessory anteromedial portal for anatomic single bundle ACL reconstruction, a comparative study **Ehab Hussien Elgiar** **Egypt**
192)	**09:10**	Failed ACL reconstruction, Causes, diagnosis and treatment **Mohamed Abulsoud** **Egypt**
193)	**09:20**	Minimally invasive open reduction and fixation of avulsed tibial insertion of posterior cruciate ligament **Abdel Samie Halawa** **Egypt**
194)	**09:30**	Minimally invasive anatomical double bundle medial patellofemoral ligament reconstruction in recurrent patellar dislocation **Mohamed Salah Singer** **Egypt**
195)	**09:40**	Increased posterior tibial slope as a novel risk factor for multiple failures after ACL reconstruction. **Abdel Samie Halawa** **Egypt**
196)	**09:50**	US Evaluation of Hamstring Tendons after Anterior Cruciate Ligament Reconstruction by Hamstring Tendon Graft **Moawed Farghly El-Adawy** **Egypt**
197)	**10:00**	Feasibility and comparison of functional Ultrasonography (USG) in diagnosing Anterior Cruciate Ligament Injury as compared to gold standard - Magnetic Resonance Imaging (MRI) **Sudeep Kumar** **India**
⇒	**10:10**	**Discussion**

THURSDAY, DECEMBER.1ST , 2016

Session 49 HALL (A)	AOTrauma Symposium Module 1: Proximal Femoral Fractures Part 2 10:00-11:30

Chairmen	**Prof. Alaa El Zoheiry** **Prof. Hazem Abdel Azeem** **Prof. Osama Farouk**

		Trochanteric pearls	
198)	**10:00**	Tips and tricks in trochanteric fracture fixation **Mahmoud Abdel Karim**	**Egypt**
199)	**10:15**	Failed trochanteric fracture fixation: Case based lecture **Ananda Nanu**	**UK**
200)	**10:30**	Subtrochanteric fractures: How to manage? **El-Zaher Hassan**	**Egypt**
201)	**10:45**	Fragility fracture fixation with augmentation-Case based lecture **Chris Van Der Werken**	**Netherlands**
		Femoral head fractures	
202)	**11:00**	Classification and Treatment Algorithm **Hazem Abdel Azeem**	**Egypt**
	11:15	Q & A	
⇒	**11:30**	**Coffee Break**	

THURSDAY, DECEMBER.1ST , 2016

Session 50	Tumor
HALL (B)	10:15-11:30

Chairmen	**Prof. Adel Refaat** **Prof. Mohamed Abdel Rahman** **Prof. Philipp Funovics**

203)	**10:15**	Management of upper extremity tumors. **Philipp Funovics**	**Australia**
204)	**10:30**	Pasteurization of Bone in Reconstruction after resection of Bone and Soft tissue Sarcoma. **Adel Refaat**	**EGYPT**
205)	**10:45**	Clavicula pro humero for shoulder reconstruction. **Mohamed Abdel Rahman**	**EGYPT**
206)	**11:00**	Biological Reconstruction in bone tumor surgery. **Walid Ebeid**	**EGYPT**
⇒	**11:15**	**Discussion**	
⇒	**11:30**	**Coffee Break**	

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Session 51	World Spinal Column Society Review Course
	Guidelines of Management of Spinal Trauma
HALL (C)	10:15-11:30

Chairmen	**Prof. Ahmed Hassan** **Prof. Faisal Fahmy Adam** **Prof. Thanos Spiliotopoulos**

207)	**10:15**	Occipital-C1-C2 injuries management –Guidelines. **Thanos Spiliotopoulos**	**Greece**
208)	**10:45**	Subaxial cervical spine injuries management – Guidelines. **Vasilis Lykomitros**	**Greece**
⇒	**11:15**	**Case Discussion**	
⇒	**11:30**	**Coffee Break**	

THURSDAY, DECEMBER.1ST , 2016

Session 52	EVA Pharma Symposium
HALL (D)	10:15-11:30

Chairmen	**Prof. Adel Adawy** **Prof. Hani El Mowafi**		
	10:15	Recent advances in management of OA.	
		Timour El Husseini	**Egypt**
	10:50	CLBP with Neuropathic Pain Element	
		Gamal Hosny	**Egypt**
⇒	**11:15**	**Discussion**	
⇒	**11:30**	**Coffee Break**	

THURSDAY, DECEMBER.1ST , 2016

Session 53	AO Trauma Symposium Module 2: Elbow injuries
HALL (A)	12:00-01:15

Chairmen	**Prof. Galal Zaki Saied** **Prof. Hassan El Zaher Hassan** **Prof. Ashraf Moharram**

209)	**12:00**	Fractures of the Distal Humerus: Case based lecture **Ananda Nanu**	**UK**
210)	**12:15**	Fractures of the Proximal Radius **Ashraf Moharram**	**Egypt**
211)	**12:25**	Fractures of the Proximal Ulna **Hatem Galal Zaki**	**Egypt**
212)	**12:35**	Dislocations and fracture dislocations of the Elbow **Chris Van Der Werken**	**Netherlands**
213)	**12:50**	Case presentations and discussion **Ashraf Moharram**	**Egypt**
⇒	**01:15**	**Change Break**	

THURSDAY, DECEMBER.1ST , 2016

Session 54	Tumor
HALL (B)	12:00-01:15

Chairmen	**Prof. Ajay Puri** **Prof. Sameh Shalaby** **Prof. Walid Ebeid**

214)	**12:00**	Principles of management of giant cell tumor. **Ajay Puri**	**India**
215)	**12:15**	Management and outcome of modular endoprostheses for musculoskeletal tumors. **Philipp Funovics**	**Australia**
216)	**12:30**	Principles and modalities of limb salvage in primary bone tumors. **Ajay Puri**	**India**
217)	**12:45**	Hemipelvectomy and functional outcome in Musculoskeletal sarcoma **Walid Ebeid**	**EGYPT**
⇒	**01:00**	**Discussion**	
⇒	**01:15**	**Change Break**	

THURSDAY, DECEMBER.1ST , 2016

Session 55	World Spinal Column Society Review Course
	Guidelines of Management of Spinal Trauma
HALL (C)	12:00-01:15

Chairmen		**Prof. Abdel Fattah Saoud** **Prof. Ashraf El Nahal** **Prof. Mohamed El Meshtawy**	
218)	**12:00**	Management of Odontoid fractures **Desmond Kwok**	**Canada**
219)	**12:30**	Classification of Thoracolumbar fractures. **Thanos Spiliotopoulos**	**Greece**
220)	**12:50**	Management of Thoracolumbar fractures-guidelines. **Ahmed Morsi**	**Egypt**
⇒	**01:15**	**Change Break**	

THURSDAY, DECEMBER.1ST , 2016

Session 56	EVA Pharma Symposium
HALL (D)	12:00-01:15

Chairmen	**Prof. Alaa El Zoheiry** **Prof. Gamal Hosny**	
	12:00	Management of Gout. **Adel Mahmoud** **Egypt**
	12:40	**Sharing experience session followed by a Surprise from EVA PHARMA**
⇒	**01:00**	**Discussion**
⇒	**01:15**	**Change Break**

THURSDAY, DECEMBER.1ST , 2016

Session 57	Shoulder
HALL (A)	01:15-02:30

Chairmen	**Prof. Ahmed Abdel Samie** **Prof. Ahmed Farag Sakr** **Prof. Yahia Basiony**

221)	**01:15**	Reverse Shoulder Replacement for Trauma & Arthritis. **Vishal Sahni**	**UK**
222)	**01:30**	Proximal Humeral Fractures - Fixation, Hemiarthroplasty or Reverse Shoulder Replacement. **Vishal Sahni**	**UK**
223)	**01:45**	Scapular lesion ..case review. **Rafid Yaseen**	**Iraq**
224)	**02:00**	Tips, Tricks & Pitfalls in Shoulder Surgery. **Vishal Sahni**	**UK**
⇒	**02:15**	**Discussion**	
⇒	**02:30**	**Lunch**	

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Session 58	Tumor
HALL (B)	01:15-02:30

Chairmen	**Prof. Abdel Khalik Hafez** **Prof. Mohamed Saleh Mostafa** **Prof. Samir Kotb**

225)	**01:15**	Evidence for BMP-7 Induced Osteoinduction in Callus Formation & Bone Healing: Applications in Trauma & Reconstructive Orthopaedics. **Panayotis N. Soucacos**	**Greece**
226)	**01:30**	Approach to a patient with a neoplastic bone lesion. **Ajay Puri**	**India**
227)	**01:45**	Surgical Management of Malignant Soft-Tissue Tumors. **Adel Refaat**	**EGYPT**
228)	**02:00**	Pathologic fractures; epidemiology and work up. **Chris Van Der Werken**	**Netherlands**
⇒	**02:15**	**Discussion**	
⇒	**02:30**	**Lunch**	

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Session 59	World Spinal Column Society Review Course
	Guidelines of Management of Spinal Trauma
HALL (C)	01:15-02:30

Chairmen		**Prof. Essam El-Sherief** **Prof. Ezzat El Hawy** **Prof. Talaat El Hadidy**	
229)	**01:15**	Management of burst fractures. **Desmond Kwok**	**Canada**
230)	**01:45**	Biomechanics of spinal implants and construct formation. **Abdel fattah Saoud**	**Egypt**
⇒	**02:15**	**Case Discussion**	
⇒	**02:30**	**Lunch**	

THURSDAY, DECEMBER.1ST , 2016

Session 60	GLOBAL NAPI Symposium
HALL (D)	01:15-02:30

Chairmen		**Prof. Adel Adawy** **Prof. Gamal Hosny**	
	01:15	Management of Neuropathic Pain **Khamis El Deeb**	**Egypt**
⇒	**02:15**	**Discussion**	
⇒	**02:30**	**Lunch**	

THURSDAY, DECEMBER.1ST , 2016

Session 61	Symposium Management of the Pain
HALL (A)	03:30-04:45

Chairmen	**Prof. Bahaa El Sarwy** **Prof. Maged Alansary** **Prof. Talaat Azz El Din**

231)	**03:30**	Postoperative Pain. **Abdallah Fekry**	**Egypt**
232)	**03:45**	Safe use of NSAIDs. **Maged El Ansary**	**Egypt**
233)	**04:00**	Acute Pain and Stress Response **Ayman Abd Al Maksoud**	**Egypt**
234)	**04:15**	Acute Pain Management at the field of Injury **Maged Alansary**	**Egypt**
235)	**04:30**	Pediatric pain management after orthopedic surgery **Ezz El Dien Fekry**	**Egypt**
⇒	**04:45**	**Change Break**	

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Session 62	Round Table Discussion
HALL (B)	03:30-04:45

Chairmen		**Prof. Abdelsalam Eid** **Prof. Adel Adawy** **Prof. El Sayed Morsi**
	03:30	***Panel:***
		Ahmed Kholief **Gamal Hosny** **Khamis El Deeb** **Mohamed Bahy El Shafie** **Osama Farouk** **Wael Koptan**
⇒	**04:30**	**Discussion**

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Session 63	World Spinal Column Society Review Course
	Guidelines of Management of Spinal Trauma
HALL (C)	03:30-04:45

Chairmen	**Prof. Khaled Saoud** **Prof. Mohamed Gamal** **Prof. Vassilis Lykomitros**	
236)	**03:30**	Vertebroplasty & Kyphoplasty for treatment of spinal fractures **Vassilis Lykomitros** **Greece**
237)	**04:00**	Spinal cord injuries **Khaled Saoud** **Egypt**
238)	**04:20**	Sacral Fractures **Abdel Fattah Saoud** **Egypt**
⇒	**04:45**	**Change Break**

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Session 64	Papers
HALL (D)	03:30-04:45

Chairmen		**Prof. Abdelsalam Hefny** **Prof. Ashraf Lotfy** **Prof. Nehad El Mahboub**
239)	**03:30**	Comparative study between the results of Conservative treatment and Percutaneous internal fixation of Acute Scaphoid fractures **Amr Hatem Ahmed** **Egypt**
240)	**03:40**	Blackish Discoloration of the articular cartilage: a case report and differential diagnosis **Osama Gamal** **Egypt**
241)	**03:50**	Autogenous vein wrapping versus insitu decompression for management of secondary cubital tunnel syndrome after surgical fixation of elbow fractures: short term functional and neurophysiological outcome. **Ahmed Fathy Sadek** **Egypt**
242)	**04:00**	Restoring elbow flexion by intercostal nerve transfer versus Oberline procedure **Mohamed Romaih** **Egypt**
243)	**04:10**	Successful protocol for treating long standing aseptic non-union of the humerus with deformity and bone loss **Hesham Alaa** **Egypt**
244)	**04:20**	Results of Various Stabilization Techniques for Scaphoid Instability in Advanced Kienbock Disease **Muhammad Quolquela** **Egypt**
245)	**04:30**	Early Results of the Arthroscopic Double Bankart Bridge Technique for Restoration of the Labral Foot print in Arthroscopic Anterior Instability Repair of the Shoulder **Mohammed Aboalata** **Egypt**
⇒	**04:40**	**Discussion**

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Session 65	Papers
HALL (A)	04:45-06:00

Chairmen	**Prof. Khaled Hassan** **Prof. Ibrahim El Hawary** **Prof. Mohamed Abdel Aal**

246)	**04:45**	Single anchor suture augmentation of coracoclavicular ligament repair with temporary k-wire fixation in Rockwood type IV and V acromioclavicular dislocation **Ahmed Nahla**	**Egypt**
247)	**04:55**	Hybrid fixation of bone tumor endoprostheses **Mohamed Fathy Mostafa**	**Egypt**
248)	**05:05**	The Carpal Tunnel Syndrome and The Double Crush Syndrome Hypothesis: Revisited **Heba Raafat**	**Egypt**
249)	**05:15**	Gender-specific versus standard posterior cruciate substituting total knee prosthesis a prospective randomized clinical trial. **Hany Saad**	**Egypt**
250)	**05:25**	Early Bicruciate ligament reconstruction after knee dislocation **Ahmed Mohammed Hany Saleh**	**Egypt**
251)	**05:35**	Extensor Tendon Splitting Versus Extensor Tendon Sparing Approach in Extra-articular Proximal Phalangeal Fractures Fixed with Miniplates and Screws **Mostafa Ahmed Thabet**	**Egypt**
⇒	**05:45**	**Discussion**	
⇒	**06:00**	**End of the Day**	

THURSDAY, DECEMBER.1ST , 2016

Session 66 HALL (B)	Orthopaedic Consultation Symposium Cases Discussion 04:45-06:00
Chairmen	Prof. Abdelsalam Eid Prof. Ahmed Galal Prof. Khamis El Deeb
04:45	
⇒ 06:00	End of the Day

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Session 67	World Spinal Column Society Review Course
	Guidelines of Management of Spinal Trauma
HALL (C)	04:45-06:00

Chairmen		**Prof. Abdel Fattah Saoud** **Prof. Abdel Mohsen Arafa**	
252)	**04:45**	The Coccyx: Facts. **Abdel Mohsen Arafa**	**Egypt**
253)	**05:10**	Surgical approaches to Thoracolumbar spine **Mohamed Fawzy**	**Egypt**
254)	**05:30**	Approaches to the cervical Spine **Ahmed El Badrawy**	**Egypt**
⇒	**05:50**	**Adjourn**	
⇒	**06:00**	**End of the Day**	

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Session 68	Papers
HALL (D)	04:45-06:00

Chairmen	**Prof. Amr Azzam** **Prof. Ahmed Omer** **Prof. Salah El Khatib**

255)	**04:45**	Gradual fibular transfer by illizarov external fixator in traumatic and infected large bone defects. **Mohammed Anter Meselhy**	**Egypt**
256)	**04:55**	fracture midshaft of the clavicle -plate versus nail ? **Khalaf Moussa**	**UAE**
257)	**05:05**	Two stage reconstruction versus bone transport in management of resistant infected tibial diaphyseal nonunion with a gap **Ahmed Fathy Sadek**	**Egypt**
258)	**05:15**	Knowledge, Attitude and Practice (KAP) Study of Residents about Osteoporosis in Assiut University Hospital in Egypt. **Ahmed Youssef Bahnasawy**	**Egypt**
259)	**05:25**	Management of equinovarus Ankle by T.S.F **Mohammed Anter Meselhy**	**Egypt**
260)	**05:35**	Insomnia in Athletes **Khalaf Moussa**	
261)	**05:35**	Salvage Procedure for Chronic Patellar Tendon Rupture: A Case Report. **Taher Abdel Satar Eid**	
⇒	**05:45**	**Discussion**	
⇒	**06:00**	**End of the Day**	

ABSTRACTS

001

ACCURACY OF MAGNETIC RESONANCE STUDIES IN THE DETECTION OF CHONDRAL AND LABRAL LESIONS IN FEMOROACETABULAR IMPINGEMENT: SYSTEMATIC REVIEW AND META-ANALYSIS

Ahmed Mostafa Saied

Introduction:

Several types of Magnetic resonance imaging (MRI) are commonly used in imaging of femoroacetabular impingement (FAI), however till now there are no clear protocols and recommendations for each type. The aim of this meta-analysis is to assess the accuracy of conventional magnetic resonance imaging (cMRI), direct magnetic resonance arthrography (dMRA) and indirect magnetic resonance arthrography (iMRA) in the detection of chondral and labral lesions in femoroacetabular impingement (FAI).

Methods:

A literature search was finalized on the 17th of May 2016 to identify all studies reporting the diagnostic test accuracy of cMRI, dMRA and iMRA in diagnosing chondral and labral lesions associated with FAI using surgical results (arthroscopic or open) as a reference test. Pooled sensitivity and specificity were calculated with 95 % confidence intervals using a random-effects meta-analysis for MRI, dMRA and iMRA also area under receiver operating characteristic (ROC) curve (AUC) was retrieved whenever possible where AUC is equivocal to diagnostic accuracy.

Results:

The search yielded 192 publications which were reviewed according inclusion and exclusion criteria then 21 studies fulfilled the eligibility criteria for the qualitative analysis with a total number of 828 cases, lastly 12 studies were included in the quantitative meta-analysis.

Meta-analysis showed that as regard labral lesions the pooled sensitivity, specificity and AUC for cMRI were 0.864, 0.833 and 0.88 and for dMRA were 0.91, 0.58 and 0.92. While in chondral lesions the pooled sensitivity, specificity and AUC for cMRI were 0.76, 0.72 and 0.75 and for dMRA were 0.75, 0.79 and 0.83, while for iMRA were sensitivity of 0.722 and specificity of 0.917.

Discussion & Conclusion:

The present meta-analysis showed that the diagnostic test accuracy was superior for dMRA when compared with cMRI for detection of labral and chondral lesions.

The diagnostic test accuracy was superior for labral lesions when compared

with chondral lesions in both cMRI and dMRA. Promising results are obtained concerning iMRA but further studies still needed to fully assess its diagnostic accuracy.

002

MANAGEMENT OF AVASCULAR NECROSIS OF THE FEMORAL HEAD BY DRILLING AND INJECTION OF CONCENTRATED BONE MARROW

HANY FAYEK ABDOU BAKHIT

Introduction:

Osteonecrosis of the femoral head is debilitating disease can lead to mechanical failure with collapse of articular surface,is the underlying cause of 10% of total hip replacements.Surgical treatment of early stage avascular necrosis femoral head remains controversal . Our study is designed to evaluate the role of drilling and injection of concentrated bone marrow in treatment of early stage avascular necrosis.

Methods:

Follow-up on 20 hips (12 patients) 8 males , 4 females with 33.4±9.9 years old who underwent our surgical technique with an average one year follow-up . Aetiology was 85% steroid therapy , stage I and II of avascular necrosis . All patients were evaluated by comparing pre-operative and post-operative Harris Hip Score and radiologicaly by Modified Kerboul angle.

Results:

average operative time was 47±7.7 minutes , mean preoperative Harris Hip Score was 68.6±9.7 , mean final follow-up Harris Hip Score 92.3±3.1 , mean Modified Kerboul Angle preoperative 219±27 , mean follow-up Modified Kerboul Angle 140±41.3 ,no reported postoperative complication . All patientsstated that they are satisfied about the results and that they had better quality of life postoperatively.

Discussion & Conclusion:

the technique presented here drilling of the femoral head then injection of concentrated bone marrow stem cells shows better clinical and radiological improvement compared to other methods , is simple , minimal invasive , no weight-bearing restriction . Mesechymal stem cells are believed to be essential in rgeneration of avascular necrosis lesion.

003

LEUKOCYTE ESTERASE ANALYSIS IN THE DIAGNOSIS OF PERIPROSTHETIC JOINT INFECTION

Ahmed Ibrahim Enan

Introduction:

Background: The diagnosis of periprosthetic joint infection (PJI) can present a challenge due to the fact that both clinical presentation and preoperative tests are not always obvious and precise. Leukocyte esterase is an enzyme present in activated PMNs, often found in infected body fluids. Exploiting this PMN-specific enzyme, leukocyte esterase reagent (LER) strips are commonly used for the diagnosis of urinary tract infections as well as peritonitis and chorioamniotis. We report our experience with this technique in the evaluation of patients suspected of having periprosthetic joint infection (PJI) by comparing results of leukocyte esterase positivity with confirmed joint infection by intraoperative tests include the histological evaluation and microbiological cultures of the periprosthetic tissue

Methods:

Between 01/2014 and 06/20016, a prospective analysis was performed in 132 patients, consecutive total hip or total knee arthroplasties who had a two stage revision because of assumed PJI. Synovial fluid was percutaneously aspirated using a standard technique. The patient age range was 31–91 years with a mean age of 61.1 years, consisting of 42 women (31.8 %) and 90 men (68.2 %).

Results:

Of the total 132 joints aspirated and included in the study, 41 (31.1 %) were read as positive (2+) on the leukocyte test strip and 72 (54.4 %) were read as negative (negative, trace, or 1+). and 19 strips (14.4%) were unable to be read secondary to debris or blood in the aspiration. Using the ++as a positive leukocyte esterase result, the sensitivity, specificity, positive predictive value, and negative predictive value were 64.2%, 93.1%, 87.7%, and 86.0%, respectively.

Discussion & Conclusion:

Leukocyte esterase reagent strips represent a rapid, inexpensive, and sensitive tool for the diagnosis of PJI. When matched to the current MSIS criteria, the leukocyte esterase strip test yielded a high specificity, positive predictive value, negative predictive value, and moderate sensitivity. Their utility is limited, however, by blood or debris in the synovial fluid. The histopathological evaluation emerges as a highly practical diagnostic tool in detection of PJI.

004

WOUND CLOSURE IN FLEXION VERSUS EXTENSION IN TOTAL KNEE ARTHROPLASTY, SHORT TERM FOLLOWUP

Tamer Madkour

Introduction:

Historically, wound closure following TKA has been performed in extension, it has been suggested that knee position during wound closure may influence

clinical outcomes following TKA The purpose of this study was to determine the difference in postoperative range of motion and pain in mobile bearing total knee arthroplasty , when wound closure in flexion and extension.

Methods:

This study included 40 primary total knee arthroplasties due to advanced osteoarthritis. The patients were randomized according to the type of wound closure: extension group for full extension and flexion group for 90° flexion. Then the two groups were examined The range of motion , and visual analogue scale score of anterior knee pain, The two groups were treated with the same postoperative treatment regimen and rehabilitation program.

Results:

The two groups were assessed at 4 weeks, 3 months and 6 months, postoperatively. It was found that wound closure in 90 degree flexion can effectively decrease anterior knee pain after TKA and promote the early recovery of ROM

Discussion & Conclusion:

There is a significant difference between the two groups in the early postoperative period, with minimal difficulty and no post operative complications in the flexion group

005

CORE DECOMPRESSION AUGMENTED WITH AUTOGENOUS BONE GRAFTS FOR OSTEONECROSIS OF THE FEMORAL HEAD

Osman abd ellah mohamed

Introduction:

Many authors have reported high rates of failure of THA in patients with AVN, there are a number of possible options for treatment other than THA in osteonecrosis of the femoral head including core decompression, rotational osteotomy, vascularized or non-vascularized bone grafting, and limited resurfacing of the femoral head.

Methods:

We have reviewed the results of 30 operations performed on 25 patients with Ficat stage-Il or stage-III osteonecrosis of the femoral head in which with or autogenous fibular bone grafting through a tunnel made in the femoral neck and head into the defect after core decompression.

Results:

At a mean of 28 months (24 to 40) after operation 20 of 24 stage-II hips (83%) had a good or excellent result as determined by the Harris hip-scoring system. Two of six stag-III hips (33%) had good or excellent results. Eighteen

of 21 hips (86%) with a combined necrotic angle of 200˚ had good or excellent clinical results compared with only four of nine hips (44%) with a combined necrotic angle of more than 200˚. Six of the eight hips which had fair or poor results were in patients who had received corticosteroids; five of these six hips had lesions with a combined necrotic angle of greater than 200˚ or were in a late stage III. There were no perioperative complications.

Discussion & Conclusion:

Our results suggest that augmentation with autogenous bone grafting can be successful in Fiat and Arlet stage-II osteonecrosis of the hip in patients with small-to medium-sized lesions.

006

EARLY TOTAL HIP REPLACEMENT FOR FRACTURES OF THE ACETABLUM

Sameh mohammed marei

Introduction:

Treating acetabular fractures with open reduction and internal fixation (ORIF) may lead to poorer outcomes in older patients so total hip replacement is good solution to such patients

Methods:

• Radiologic

• Fractures are classified according to Letournel grading system • Post-op radiography at (3, 6, 12 months and annually
afterwards.)

• Evaluation of fracture healing, graft incorporation, cup position • Cement bone interface (Charnley & Lee) • Clinical & functional HHS

Results:

Twenty nine patients who received THR within thefirst three months from injury were prospectively Evaluated and two of these patients had early failure of ORIF • Average age was 63 years (49 to 76 years) and nineteen were males and 10 females with Follow up for 4 years (2-7 years). Fracture healing was observed in 26/29 cases (90%) • Graft incorporation to trabecular arrangement was observed in 21/29 cases 72% • Graft was stable in the remaining 28%.

• Final HHS was 87 (92-79)

Discussion & Conclusion:

DISCUSSION:

• Fracture fixation and impaction graft aids in fracture union and Cemented cups on top of impaction graft are good option especially in osteoporotic patients • The posterior approach is enough when there is no proximal

extension of the fracture to the ilium or SIJ
CONCLUSION:
Early THR for the defined indications achieves excellent results and Bone graft is an important factor that aids in healing and restoring the bone stock• Medium term results are comparable to published results of THR for these patients

007

RELIABILITY OF USING A-P PLAIN RADIOGRAPHS FOR POSTOPERATIVE MEASUREMENT OF ACETABULAR CUP ANTEVERSION AFTER THA

Mohammad Ali Alzohiry

Introduction:

The acetabular cup orientation is a critical factor for successful THA and the acetabular cup have to be placed in a proper position otherwise, adverse effects like instability, wear, osteolysis, stress shielding and component migration will occur and all will increase the need for revision surgery.
Many methods have been postulated for postoperative measurement of acetabular cup anteversion using CT and plain radiographs. In spite of being accurate, the CT measurements are expensive and demanding. the X-ray based methods may represent good alternatives for but, few studies have assessed their reliability. This study had assessed the accuracy of five methods using plain radiographs by comparing the results of their measurements to that of CT measurements which considered to be the reference

Methods:

60 THA patients divided into two groups : 37 cementless cases (group A) and 23 cemented cases (group B) were subjected postoperatively to CT, plain A-P of the pelvis and A-P view of the hip. Cup anteversion in every case was measured in hip and pelvis views by five methods and compared to measurements from CT.

Results:

Lewinnek′s method and Liaw method gave accurate results in both hip and pelvic views while Hassan method was accurate in the pelvic view not in hip view. Ackland′s and widmer′s methods were inaccurate.

Discussion & Conclusion:

It is recommended to use Lewennik or liaw method in the hip or pelvic view or Hassan method in the pelvis view only. It is better to avoid using Ackland and

Widmer methods as they give inaccurate results.

008

OUTCOME OF CEMENTED BIPOLAR AS PRIMARY MANAGEMENT OF COMMINUTED UNSTABLE INTERTROCHANTERIC FRACTURE FEMUR IN ELDERLY SUDANESE PATIENTS.

Mohamed Hamed Awad El Sayed

009

KNEE JOINT RECONSTRUCTION AFTER HEMIARTICULAR RESECTION USING PEDICLED PATELLA AND VASCULARIZED FIBULAR GRAFT

Mohamed Mostafa Kotb

Introduction:

Between 1999 and 2005, seven patients had resection of tumors around the knee joint that involved half of the articular surface of the femoral or tibial side. Average age of the patients was 28 years (range, 14–40). Tumor pathology was giant cell tumor in four patients, osteoblastoma in two, and benign fibrous histocytoma in one patient. Two patients had recurrent tumors. The tumor was located in the distal femur in five patients and in the proximal tibia in the remaining two. The ipsilateral patella pedicled on the infrapatellar fat pad was used to substitute the resected articular surface and a vascularized fibula osteoseptocutaneous flap was used to reconstruct the metaphyseal defect. Average follow-up period was 6.5 years (range, 3.5–10 years).

Methods:

All flaps survived. Average time to bone union was 3.5 months (range, 3–4 months), and average time to full weight-bearing was 5 months (range, 4–6 months). No radiological signs of avascular necrosis of the patella were observed in any patient. Two patients required secondary procedures for correction of instability. One patient had local recurrence. At final follow-up, the median range of knee motion was from 108 to 1008. The average Knee Society Score (KSS) was
76 points (range; 50–85 points), and the average KSS functional score was 76.6 points (range, 70–90 points)

Discussion & Conclusion:

In conclusion, the procedure
is a reliable option for after resection of tumors that involve half the articular surface of the femur or the tibia. V

010

MIPPO MAY BE PREFERABLE TO PFNA IN TREATING UNSTABLE PERTROCHANTERIC FRACTURES

Mohamed Ali

Introduction:

Background: Controversy still existing about the relative merits of the fixation device for the challenging unstable pertrochanteric fractures, its suitability for the eastern patient groups. The aim of the present study was to compare the outcomes of MIPPO using a newly designed anatomical proximal femoral plate, (Minia-plate), and proximal femoral nail antirotation (PFNA) in the treatment of these fractures.

Methods:

We prospectively randomized 50 patients with unstable pertrochanteric fractures in a surgeon-allocated study to either technique. Each group included 25 patients. All the operative, post-operative, and follow up variables were evaluated. Finally, functional evaluation as per the Harris Hip Score, and economic assessment were done.

Results:

No significant difference was found regarding blood loss, operative time, hospital stay, time to wt-bearing, time to bone union, return to pre-injury level of activity, implant failure, or deep infection. The PFNA group should difficulty in reduction of some cases, higher deterioration of the immediate post-operative alignment, and reoperation rate. It may not suit patients with small neck-shaft angles. The MIPPO group should less cost, higher Harris hip score and better achievement of structural competence especially with comminuted fractures and can be easily administrated by junior surgeons.

Discussion & Conclusion:

PFNA and Ali-plate were useful and effective. MIPPO offered less-cost and may be preferred in patients with reduced neck-shaft angle, lateral wall break, and comminuted fractures where structural competence could not be offered by nailing. The preoperative planning is the cornerstone to determine the patient, fracture, and surgeon factors that give priority for a certain implant.

011

ILLIZAROV EXTERNAL FIXATION FOR TROCHANTERIC FEMORAL FRACTURES IN HIGH RISK PATIENTS.

Mohammed anter meselhy

Introduction:

The purpose is to evaluate the effectiveness of Illizarov external fixator in management of intertrochanteric Femoral fractures in high risk patients.

Methods:

22 patients had chronic diseases with relative contraindication for closed reduction and internal fixation were managed by Illizarov external fixation.

There were 17 male patients (77.3%), 5 females (27.7%). 12 patients had hepatic Insufficiency (54.5%), while 6 patients (27.3%) had uncontrolled hypertension and cardiac problems, 2 patients (9.1%) had pulmonary diseases, while 2 patients (9.1%) had uncontrolled diabetes mellitus.
The patients mean age was 65.5 years, range (30-81) years. Fracture pattern was stable Evans type 1 Fracture in 17 patients (77.3%), while 5 patients (22.7%) was unstable Evans type 1 Fractures.

Results:

The mean follow up period was 19 months after fracture healing. There were no mortalities in the early or late postoperative periods.
Fracture healing in half of the patients took 90 days, where in the other 50%, 120 days were needed for complete union.
Harris hip score was used for evaluation of the outcome, the result was excellent in13 patients (59.1%), good in 4 patients (18.2%), fair in 4 patients (18.2%), and poor in 1 patient 4.5%.
Superficial pin tract infection was Present in 35%of the patients.
Varus deformity was present in 3 patients (13.6%), while shortening was present in 4 patients (18.2%), ranging from 1.2 cm to 1.8cm.

Discussion & Conclusion:

Illizarov external fixation could be considered as an alternative treatment modality for high-risk patients with intertrochanteric fractures. The technique is simple, safe and can be performed under regional or even local anesthesia.

012

EVALUATION OF RESULTS OF INTERNAL FIXATION OF SYMPHYSEAL INJURIES USING NOVEL PLATE DESIGN ; ASSIUT SYMPHYSEAL PLATE

Mohamed Yahya Abdel Azeem

Introduction:

Plate fixation remains primary method of internal fixation of symphyseal fractures. Literature shows great controversy on ideal plate design for symphyseal fixation. The aim of this study was to evaluate reduction and fixation capabilities of Assiut symphyseal plate.

Methods:

Traumatic symphyseal injuries in 14 patients were fixed with Assiut symphyseal plate between November 2013 and June 2016. The plate is a biplanar titanium locked plate designed in Assiut university hospital . Radiological and functional outcomes were assessed at 2 , 6 and 12 month postoperatively.

Results:

7 patients had fracture pelvis Tile type B and 7 had fracture pelvis Tile type C . Satisfactory reduction was achieved (Dujardin criteria ; symphyseal distance < 5mm) in 12 patients. No significant loss of reduction occurred over 1 year postoperatively. Functional outcome (Majeed functional score) was excellent in 11 cases , good in 2 and fair in one case.

Discussion & Conclusion:

Assiut symphyseal plate can be used in fixation of symphyseal injuries safely with good radiological and functional outcome . Further studies are needed to compare with conventional plates.

013

NON VASCULARIZED DOUBLE-BARREL FIBULAR GRAFT FOR THE RECONSTRUCTION OF METAPHYSEAL SUPRACONDYLAR FRACTURE OF THE FEMUR

Tamer Abdel Mawla

Introduction:

Does the Non vascularized Double-barrel fibular graft restore metaphyseal bone defect in distal fracture of the femur in the presence of stable mechanical environment?

Methods:

From January 2011 to December 2014, 13 cases of supracondylar fracture of the femur with metaphyseal bone defect were performed in our institution, eight case were male. Five were female, with average age 45 years(range 19-73 years), lateral condylar blade plate was used in ten cases(AO type 33A, 33C2). and circular external fixator in 3 cases with intra-articular comminution (AO type 33C).

There were 2 cases of open grade 3c, according to the Gustilo and Anderson classification system and was managed initial by spanning fixator and vascular repair.

014

AVOIDING ROTATIONAL MALALIGNMENT AFTER INTER-MEDULLARY FIXATION OF FRACTURES OF THE FEMUR BY USING THE PROFILE OF THE CONTRALATERAL LESSER TROCHANTER AS A REFERENCE.

Ibraheem Mostafa Abbas

Introduction:

Malrotation is the most common cause of deformity after inter-medullary

fixation of fractures of the femur , but it is under-recognized, Clinical examination, fluoroscopy, and ultrasonography are useful in measuring femoral rotational alignment intraoperatively and postoperatively. CT is useful in the identification of the degree of malrotation and in surgical planning

Methods:

Follow-up on 33 patients (twenty seven men, and six women with average 30.7± 9.3years old), The patients had been divided into 2 groups; group A (16 patients) were treated with our technique (using the profile of the contralateral lesser trochanter serving as a reference to avoid rotational malaligment while group B(17 patients) were assessed clinically intera-operative(control group).all patient were assessed clinically after fracture healing and rotation was evaluated using CT

Results:

The results indicated that using the profile of the contralateral lesser trochanter serving as a reference to avoid rotational malalignment significantly ($p \leq 0.05$)improved the Harris Hip , Neer and Tegner Lysholm Knee Scoring Scale .also, numercally reduced the incidence of true rotational deformity.while it dosnt affect type of rotation of distal fragment

Discussion & Conclusion:

In Conclusion the technique investigated in this study may be considered helpful in reducing rotational malalligment after inter-medullary fixation of fractures of the femur.however further investigations still required

015

RELIABILITY OF CT- BASED THREE COLUMN CLASSIFICATION OF TIBIAL PLATEAU FRACTURES COMPARED TO SCHATZKER'S AND OTA /AO CLASSIFICATION

Salah Senosy

Introduction:

A useful classification system in orthopedic trauma must 1. reliably categorize the fracture type, 2. facilitate communication in clinical practice, 3. guide preoperative planning and 4. enable comparing results and outcomes across studies. Nowadays, the most common classification systems used in tibial plateau fractures include schatzker's [2], Hohl and Moore and OTA/AO . However, all established classification schemes are not always helpful for planning the surgical strategy.a three-column classification allows for a better understanding of the fracture morphology and the injury mechanism, which guides surgical management. A classification based on the CT-scan is ultimately needed to obviate the possibilities of ignoring the posterior fragment and to design the surgical plan in a more accurate wayIt showed substantial and higher agreement among total number of observers for CT-based three column classification like schatzker's and OTA/AO ,another , and to use it as

a helpful tool for planning the surgical strategy.

Methods:

By 25 observer of different levels of orthopedic training 5 expert surgeons of tibial plateau fracture ,10 regular tibial plateau surgeons and10 beginner surgeons of tibial plateau fracture fixation we collect 30 cases of tibial plateau fractures which undergo admission in trauma unit of Assiut University Hospital arranged randomly and numbered from 1 to 30 these fractures were analyzed and classified by the observers on plain x-ray and multislice CT according to Schatzker's, OTA/AO and CT- based three column classifications and appropriate app roach and method of fixation ,type of plate and usage graft or not is determined according to each other. Before the research, a classification training session was held to each observer by diagrams and information needed by any of them . They were given as much time as they required evaluating the radiographs accurately and independently. The classification choices made at the first viewing were not available during the second viewing. 2 weeks later those fractures reanalized and classified on plain x-ray and CT scan and preoperative surgical planning were done again (approach , type of fixation, type of plate (DCP vs locked) and usage of graft or not) All data of the analysis and classifications are collected in previously prepared sheet . the data in these sheets recollected in EXCEL sheet to apply SPSS system to perform our statistics by two methods Kappa value and Guttmann split half.

Results:

among over all groups nearly equal high agreement (intra-observer reliability)of the CT-based three column classification Kappa (0.89 in first session and 0.92 in second session)and schatzker's Kappa (0.91 in first session and 0.90 in second) compared to OTA/AO Kappa (0.89 in first session and 0.86 in second session)which had slightly lower agreement compared with former two classifications, also we noticed that (17%) of all surgeons change their preoperative planning according to CT-based three column classification of tibial plateau this (85%) percentage of them was in a complex tibial plateau fracture the inter-observer reliability was higher in schatzker's Kappa value (0.87 to0.88) and three column classification Kappa value (0.89 to 0.88) compared to OTA /AO Kappa value (0.77 to 0.83) the inter- observer reliability we noticed that it differ according to level of orthopedic training as following regarding to schatzker's ranging from (Kappa v
alue
0.87 for expert , Kappa value 0.89 for regular and Kappa value 0.78 for beginners of orthopedic training),for OTA/AO(Kappa value 0.76 for expert , Kappa value 0.87 for regular and Kappa value 0.77) for beginner of orthopedic training and for CT-based three column classification (Kappa value 0.89 for expert , Kappa value 0.87 for regular and Kappa value 0.75 for beginner of orthopedic training.

Discussion & Conclusion:

The three-column classification of tibia plateau fractures based on reformatted 3D CT scans can identify posterior column fractures and fragment likely to be missed on plain radiographs. It showed substantial and higher agreement among total number of observers for CT-three-column classification like a schatzker's and OTA/AO ,another , and to use it as a helpful tool for planning the surgical strategy.

Have a Comment?:

this study has the following criteria 1-It covers Large number of cases as we use 30 cases where other studies use 6 or 4 cases which give us more accurate and relatively more valid results

2- Relatively large number of observer which give us a good indicator of both reliability and validity

3- The study assess both inter-observer and intra-observer reliability which is highly recommended for validations of different classifications

4- It is a prospective study .

016

MANAGEMENT OF TIBIAL NON-UNION WITH BONE LOSS BY ILIZAROV TECHNIQUE

Hefzulla MH. Abdulla

Introduction:

Management of tibial fracture with extensive bone and soft tissue loss, bone defect and shortening due to infected nonunion presents complicated problem with significant long-term morbidity. Attempting limb reconstruction in the presence of significant bone loss usually involves surgery which is technically difficult. some of methods may not be capable of treating infection and bone nonunion simultaneously. The ability to solve those complexities of bone defect, poor soft tissue envelope, discrepancy, deformity and infection is possible with application of the Ilizarov technique.

Methods:

For the last 10 years (2004 -2014) in different hospitals, 79 cases of tibial diaphyseal defects were operated by the Ilizarov technique. 67 (84.8%) of them had open fracture. Patients from either gender were included with age range from 12-60 years, if they had tibial bone defect of more than 5cm due to primary trauma or secondary due to multiple previous operations and debridement. The defect developed in 53(67.1%) patients as a result gunshot injuries and in 21 (26.6%) patient as a result of traffic accidents and 5(6.3%) as a result of falling from height and osteomyelitis. In 25(31.6%) 2.5 - 3 mm intramedullary flexible K wires or nails was inserted to guide the transported segment in those cases where there is adequate soft tissue coverage and no infection.

Results:
The mean number of failed previous surgical procedures for union per patient was 2.8(range 1–16). The mean length of the bone defect was 9.3 cm (5-16 cm),
21 (26.6%) patients had road traffic accidents, 53(67.1%) gunshot injuries, 5(6.3%) as a result of falling from height and osteomyelitis. Eradication of the infection were achieved in all infected cases, bone union in 79 . The mean external fixation index was 1.3 month/cm. Bone results were excellent in 71(89,9%) patients, good in 5 (6.3%), fair in two (3.8%) and poor in one (1,3%) patient. Functional results were excellent in 46 (58.2%) patients, good in 28(35.4%), two(3,8%) fair, and there were no patients with poor or failure results. Skin invagination over the gap site was seen in 34 (43%)patients, adjustment was done in 27 (34.2%)patients, and it wasn't necessary to do so in those cases where intramedullary flexible K nail were applied.

Discussion & Conclusion:
Ilizarov technique has been shown to be invaluable in the treatment of difficult orthopaedic cases. it allows for the simultaneous treatment of bone loss, infection, non-union, problems of the soft tissues and the usefulness of flexible intamedullary k nails decrease the necessity for adjustment at the docking site.

017

AUGMENTED LOCKED PLATE FIXATION OF COMPLEX DISTAL RADIAL FRACTURES.

Mokhtar Abdul Azeem

Background:
Complex intraarticular distal radial fractures associated with small articular fragments or distal radioulnar instability are difficult to treat and have a worse prognosis because of their potential for incongruity and arthrosis of the radiocarpal and distal radioulnar joints. Although treatment of these fractures has improved over the past decade, there is no single implant or technique that is appropriate for treatment of all fractures.

Methods:
From 2007--2010, 29 patients with 31 complex distal radial fractures (AO type C) with intraarticular fragments (two fractures were bilateral) were treated with open reduction and internal fixation with volar locked plate augmented with Kirschner wires ,screws and radial styloid plates.

Results:
After a mean follow-up of 30 mo (range: 28--36 mo), 87% of the patients were satisfied with the treatment and resumed their preoperative activities. According to Gartland and Werley clinical and radiographic scoring system, excellent results were achieved in 13 fractures (42%), good results in 14

(45%), and fair results in three (10%), and a poor result in one (3%).

Conclusions:

We concluded that although volar plating is a good treatment modality for treatment of complex distal radial fractures it should be augmented with Kirschner wire fixation outside the plate in fractures with small fragments of radial styloid, lunate or sigmoid fossa and in fractures that have associated distal radioulnar joint instability or displaced ulnar styloid fracture.

018

UNSTABLE DISTAL END RADIUS FRACTURE.

Ahmed Allam

019

POSTERIOR SHORT-SEGMENT PEDICLE INSTRUMENTATION WITHOUT FUSION FOR THORACOLUMBAR BURST FRACTURE

Emad Abdelhadi

Introduction:

Background: The treatment for thoracolumbar burst fractures is controversial. The aim of surgical treatment is promoting neurological recovery by decompression of spinal canal and nerve roots and Obtaining rigid fixation to prevent delayed neural injuries, restoration and maintenance of anatomic alignment, relieving pain and facilitating early rehabilitation, and limiting the number of instrumented vertebrae.

Methods:

A consecutive series of 30 patients with thoracolumbar burst fractures were treated by posterior short segment pedicle screw fixation between January 2009 and June 2015. Five patients were lost during follow up and all the remaining 25 patients were followed up for a minimum of three years. All the patients were treated with short-segment pedicle instrumentation and laminectomy without fusion, and the restoration of retropulsed bone fragments. The mean operation time and blood loss during surgery were analyzed; the Regional Kyphotic Angle and neurological status were compared before and after the operation.

Results:

The mean operation time was 97.4 min (range: 70–120 min) and the mean intraoperative blood loss was 421.6 mL in all cases. No intraoperative or immediate postoperative complications were noted. The mean fracture kyphosis was 35.84° at the time of admission and 14.56° at the final follow-up evaluation. All patients recovered without main complications like misplacement of the pedicle screw, nerve or vessel lesion and four cases with implant failure. The post-operative radiographs demonstrated a good fracture reduction. Neurological recovery of one to three Frankel grade was seen in six

patients with partial neurological deficit, three grades of improvement was seen in one patient, two grades of improvement was observed in six patients and one grade of improvement was found in four patients. All eight patients with no paraplegia on admission remained neurological intact, and in two patients with Frankel D.

Discussion & Conclusion:

This technique allows for satisfactory canal clearance, it promotes the recovery of neurological and clinical function but the kyphotic angle and vertebral body height cannot be maintained by this technique.

020

PEDICLE SUBTRACTION OSTEOTOMY FOR CORRECTION OF SPINAL SAGITTAL IMBALANCE IN DORSO-LUMBAR SPINE

Mohamed Moawad Abdelmotaleb

Introduction:

Sagittal imbalance a syndrome in which the patient is unable to stand without flexing both hips and knees
Have different a etiology maybe traumatic ankylosing post infections
PSO is aposterior only approach for correction
We discuss here how to approach
Different modalities how to avoid complications

Discussion & Conclusion:

PSO is apoweful tool for correction
In our search20patient with fixed kyphotic deformities corrected by our method pre operative and post operative assessment by two different scores
Radiological assessment
All result and complications are recorded

021

MINIMALLY INVASIVE SPINE OSTEOSYNTHESIS (MISO) TECHNIQUE FOR DORSOLUMBAR SPINE FRACTURES

Hesham Mohamed Safwat Ibrahim

Introduction:

Polytraumatized patients following a severe trauma suffer from substantial disturbances of the immune system. Secondary organ dysfunction syndromes due to early hyperinflammation and late immunparalysis contribute to adverse outcome. Consequently the principle of damage control surgery / orthopedics developed in the last two decades to limit secondary iatrogenic insult in these patients. Mini open surgery for internal fixations provides implants for a damage control approach of spinal trauma in polytraumatized patients. The goal of this study is to evaluate the effectiveness of minimally invasive treatment of dorso-lumbar fractures by mini open surgical pedicle screw

fixation and to discuss the potential benefits and drawbacks of this procedure.

Methods:

The present prospective study was conducted at Bab El Shaaria and El Hussein Hospital AL Azhar University from 2009-2014, fall from height /staircase was the most common mode of injury in 9 patients followed by road traffic accident in 4 and in one case drop of heavy box over the back while working.

This study involves Patients of acute traumatic single level dorsolumbar and spine fractures requiring surgical intervention were included in this study. Fourteen patients(10 male, 4 female), age range 17-47 years (mean 30.1 ± 7.9 yrs) with dorso-lumbar fractures(D12:4, L1:6,L2:2, L3:2) with TLICS score>4 were studied (Feb 2009-Feb 2014). Total of 60 screws were put of which 2 screws were mal positioned (3.3%). Open conversion was done in two cases (15.3%) due to difficulty in rod positioning. In one case, screw pull out was noted intra operatively during ligamentotaxis and rod manipulation.

Results:

No patient had post-operative neurological deterioration. Mean post-operative hospital stay was 3.8 days. Follow-up scans showed satisfactory correction of deformity. Good to excellent outcome was present in 84.6%.

Discussion & Conclusion:

We conclude that mini open surgery for pedicle screws fixation is a safe, reliable, cost effective technique with favorable results in acute polytrauma cases requiring standalone ligamentotaxis. Complex biomechanics/physics of instrumentation, lack of adequate fusion and steep learning curve during initial cases with increased radiation exposure limits its application in all cases.

022

VERTEBRAL COLUMN RESECTION IN MANAGEMENT OF SEVERE SPINAL DEFORMITIES; OUTCOME AND COMPLICATIONS

Mohammed Khalid Saleh

Introduction:

The surgical treatment of severe spinal deformity is challenging. Traditionally, a circumferential approach with anterior releases through discectomies followed by posterior instrumentation and fusion has been the standard of care. A posterior-based VCR is a safe but challenging technique for treating severe primary or revision paediatric and adult spinal deformity [1].The location of the VCR is always at the apex of the deformity in the coronal and/or sagittal plane. The goal is to do the least amount of resection that affords safe and adequate correction of the deformity [1].

Methods:

38 adult spinal deformity patients treated with PVCR were retrospectively reviewed and followed at Johns Hopkins university hospital during my research fellowship. The mean age at time of surgery was 51.2(21-82) years, there were 15 males (39.5%) and 23 females (60.5%). The surgery formed of segmental pedicle screw insertion, temporary rod stabilization, posterior resection of vertebral column at the apex of the deformity followed with deformity correction and circumferential fusion with bone grafting. Intraoperative neuromonitoring (motor and sensory evoked potential) was used in all cases.

Results:

The total number of the resected vertebra was 39.5; 28.5 thoracic and 11 lumbar. Estimated blood loss was 2295.5ml (range 550 - 6500 ml), Hospitalization time was 9.2 days (range 3-25 days). Follow up time was 28.8 months (range 1 - 60 months). In scoliotic deformity group(A): the mean coronal Cobb improved from 79.7 (±8) to 27.8 (±11.4°) with correction rate of 65.1%,in Kyphoscoliotic group (B): The mean coronal Cobb improved from 56.8 (±18.5) to 11.8 (±6.7 (with correction rate of 79.2%, The mean sagittal Cobb improved from 72.6 (±14.7) to 20.6 (±14.7) with correction rate of 71.6% and in Kyphotic group(C): The mean sagittal Cobb improved from 70.6 (±29.6) to 22.1 (±14.6) with correction rate of 68.7%. Complications were encountered in 19 patients; (3) dural tears , (2) postoperative cord compromise, and no one of those patients had intraoperative loss of neuromonitoring signals, (1) residual sagittal imbalance, (1) PJK,(1) non union wit
h rod
fracture,(1) postoperative neck pain, (1)superficial wound infection,(2) pulmonary emboli, (2) pleural effusions, (1) pneumothorax, (1) respiratory failure, (1)colonic dilatation ,(1) decreased oral intake, and (1)postoperative hypertension.

Discussion & Conclusion:

Vertebral column resection (VCR) is an osteotomy of all three columns of the spine usually reserved for severe rigid spinal deformities that enable translation and shortening necessarily to correct multiplanar deformities [1]. Vertebral column resection differs from spinal osteotomy in that the gap created in the osteotomy is closed by apposition of the osteotomy surfaces; however the VCR creates an unsupported gap that need to be supported by an active additional reconstruction [1].

PVCR is a safe but challenging technique for treating severe primary or revision spinal deformity. Intraoperative spinal cord monitoring, especially motor tract monitoring, is mandatory to prevent spinal cord-related neurologic complications.

023

THE EFFECTIVENESS OF POSTERIOR CERVICAL SURGERIES IN MULTI-SEGMENTAL CERVICAL MYELOPATHY WITH NEUTRAL OR KYPHOTIC ALIGNMENT.

A SYSTEMATIC REVIEW.

Mohamed Abdelrazek

Introduction:

The surgical treatment of the cervical myelopathy due to multi-segmental stenosis has been controversial for a long time and still is. Many techniques are described, either through posterior methods including uninstrumented laminectomy, laminoplasty and laminectomy with instrumented fusion, or anterior surgeries . Posterior techniques are preferred in 3 levels or more stenosis. Many of the systematic reviews trying to investigate the best evidence for management do not specify the number of levels involved or the presence of kyphosis.the objective of the article is to present the effectiveness of the posterior techniques with focusing on cases with three or more levels involvement in the presence of neutral sagittal alignment or mild degree of kyphosis (less than or equals to 10 degrees).

Methods:

A systematic review of literature was performed using PubMed and Ovid Medline databases using the same search phrase: (posterior) AND (approach OR fusion OR laminectomy OR laminoplasty OR decompression OR instrumentation OR (instrumented fusion) OR fixation OR procedure OR surgery OR decompression) AND (spine OR spinal OR cord OR vertebral OR vertebrae) AND (cervical OR neck) AND (kyphosis OR kyphotic OR Nonlordosis OR (nonlordotic alignment) OR (neutral alignment) OR (sagittal alignment)) AND (spondylotic OR myelopathy OR stenosis OR spondylosis OR CSM OR stenotic OR compressive OR compression OR degenerative OR multilevel OR multisegmental OR (multiple levels)), further search was applied through reviewing references of the included search results. Articles were reviewed by the authors based on predetermined inclusion and exclusion criteria.

Results:

Pubmed search yielded 423 results , Ovid midline 199 results , after title review and exclusion of duplication and non-English articles 75 articles were included and after final full text review 5 articles were included and presented. Three groups were formulated, laminectomy, laminoplasty, and laminectomy with posterior instrumented fusion .Comparison included neurological grading ,VAS ,ONDI ,early and late complications .

Discussion & Conclusion:

There is a significant effectiveness of the cervical laminectomy with posterior instrumented fusion on the long term follow up even in the presence of cervical kyphosis. However, due to the diversity in the criteria of evaluation between the different articles , more clinical research should be directed to create an evidence-based consensus on the guidelines for decision making in multi-segmental cervical stenosis.

024

POSTERIOR INTERBODY FUSION VERSUS POSTEROLATERAL FUSION FOR TREATMENT OF SEGMENTAL LUMBAR SPINAL INSTABILITY

Sherif Alagamy

Introduction:

The rationale behind lumbar fusion surgery is to eliminate pathologic segmental motion and its accompanying symptoms, especially low back pain. (1) Posterolateral fusion (PLF) using pedicle screw fixation (PS) has been one of the most popular procedures among the posterior lumbar reconstruction techniques. (1, 2) Lumbar interbody fusion is a recognized surgical technique in the treatment of chronic low back pain in segmental instability.(3) The aim of this prospective study is to evaluate the results of posterior interbody fusion versus posterolateral fusion in treatment of segmental lumbar spinal instability.

Methods:

Forty patients with segmental lumbar instability were divided into two groups; the posterior interbody fusion group (PIF) in the form of transforaminal lumbar interbody fusion (TLIF) and the posterolateral fusion group (PLF); twenty patients each. Top loaded pedicle screw construct was used with both groups. The mean age of the patients was 48.35 years in PIF group and 45.3 years in PLF group. Sex distribution was 6 males and 14 females in PIF group and 7 male and 13 females in PLF group. Mechanical low back pain was the chief complaint in all patients. Sciatica was a complaint of 12 patients (60%) of PIF group and 13(65%) patients of PLF group. Patients were evaluated pre and postoperative by visual analogue scale VAS, Oswestry disability index ODI and radiographs.

Results:

The average operative time was 214.5 minutes in PIF group and 192.5 minutes in PLF group. The mean estimated blood loss was 278 ml in PIF group and 259 ml in PLF group. The average length of hospital stay was 3.85 days in PIF group and 3.8 days in PLF group. Patients were progressively improved regarding VAS and ODI in both groups with no statistical significant difference except for VAS for back pain where PIF group gave better results. However PIF group gave better results in patients with secondary instability (e.g. postlaminectomy instability) than PLF group. Solid fusion occurred in 17 patients (85%) of PIF group and 16 patients (80%) of PLF group with no statistical difference.

Discussion & Conclusion:

Both posterior interbody fusion and posterolateral fusion are good options for treatment of segmental lumbar instability. However interbody fusion gives

superior results in patients with secondary type instability.

025

PREVENTING PROXIMAL ADJACENT LEVEL KYPHOSIS WITH STRAP STABILIZATION

Khaled Zaghloul

Introduction:

Proximal junctional kyphosis (PJK) is a complication following spine fusion surgery for various indications, including degeneration, deformity, trauma, and tumor.1 The reported prevalence ranges between 26% and 39% after posterior segmental spinal fusion.2,3 Proximal junctional kyphosis has been commonly defined as a Cobb angle between the upper-instrumented vertebrae and 2 supra-adjacent vertebrae of 10° or greater.3,4 According to the Scoliosis Research Society patient questionnaires evaluating outcome, PJK is a mostly asymptomatic radiologic finding with the largest burden being self-image.5 However, once PJK presents, if a fracture of the vertebral body, posterior osseo-ligamentous disruption, or instrumentation failure occurs, it is considered by definition to be proximal junctional failure (PJF). In contrast to PJK, PJF does increase the risk of neurological injury and most often requires revision surgery.6 Proximal junctional kyphosis increases the risk of fractures , subluxations, deformity, and implant prominence; thus, the presence of PJK appears to create a greater potential for the development of PJF

Methods:

From 2011 to 2014, a total of 23 patients had a posterior spinal fusion with use of Mersilene tape adjacent to the most proximal level treated with pedicle screws. The average age of the patients was 63 years (range, 42–83 years). Eleven were men and 12 were women. Average follow-up was 11.9 months (range, 1–29 months). Four patients had primary fusion surgery and the rest underwent revision of posterior fusion for junctional disease or nonunion. In all cases, Mersilene tape was used adjacent to the proximal end of the construct. Bone cement was used in 3 cases at the top instrumented vertebrae for screw support and not at the adjacent levels. Two patients had complications in the postoperative period. There was 1 case of infection, which was treated with debridement and irrigation and subsequent revision and extension of fusion and anterior corpectomy. The other case was complicated by an ileus, which was managed conservatively.

Results:

On the initial analysis of outcomes following implementation of Mersilene tape–based strap stabilization, none of the 18 patients have thus far developed PJK by definition of a Cobb angle of 10° or greater. Average follow-up was 11.9 months (range, 2–31 months

Discussion & Conclusion:

Proximal junctional kyphosis is a common radiographic finding following long

spinal fusions. Risk factors for PJK include upper instrumented vertebrae above L2, older age at operation, low bone mineral density, short fusion constructs, and inadequate restoration of global sagittal balance.2 Along with these risk factors, preservation of the natural biomechanical support of the spine is important in preventing PJK.1,9

The interspinous/supraspinous ligament complex immediately above the instrumented level has been found to maintain the natural support of spinal levels above the construct and to potentially reduce the prevalence of PJK.1,2 If the interspinous/supraspinous ligament complex is compromised, or more support above the construct is needed, several techniques have been implemented to mimic the actions of these structures and to provide a transition from the rigidity of a completed spinal fusion to the naturally more flexible proximal vertebrae.

The use of sutures made from material such as Mersilene tape to provide strap stabilization for adjacent spinal levels is an under-documented technique that the authors believe provides several advantages over other check-rein and soft stabilization techniques. When considering the cost of implementation and the risk of neurologic sequelae, the authors believe that the use of Mersilene tape serves as a unique and valuable option for reducing the prevalence of PJK.

026

MAJOR AND MINOR COMPLICATIONS OF PVCR IN MANAGEMENT OF SEVERE SPINAL DEFORMITIES

Mohammed Khalid Saleh

Introduction:

VCR, which has traditionally been used in the treatment of spinal tumors, spondyloptosis, and congenital spinal anomalies, has recently been used as a technique for the treatment of severe and rigid spinal deformities. Complete and circumferential resection of all spinal elements at a single level allows for tremendous correction capabilities in both the sagittal and coronal planes in a controlled fashion without the need for a separate anterior approach [1]

Methods:

38 adult spinal deformity patients treated with PVCR were retrospectively reviewed and followed at Johns Hopkins university hospital during my research fellowship. The mean age at time of surgery was 51.2(21-82) years, there were 15 males (39.5%) and 23 females (60.5%). The clinical records and medical charts and preoperative and last follow up radiological images were collected and analyzed to be the material of this study.

Results:

Follow up time was 28.8 months (range 12 - 60 months). Estimated blood loss was 2295.5ml (range 550 - 6500 ml), Complications were encountered in

19 patients; (3) dural tears , (2) postoperative cord compromise, and no one of those patients had intraoperative loss of neuromonitoring signals, (1) residual sagittal imbalance, (1) PJK,(1) non union with bilateral rod fracture,(1) postoperative neck pain, (1)superficial wound infection,(2) pulmonary emboli, (2) pleural effusions, (1) pneumothorax, (1) respiratory failure, (1) colonic dilatation ,(1) decreased oral intake, and (1) postoperative hypertension. SVA improved from 8.4 cm (±9) to 2.9(±4.5) with correction rate of 65.5%. Coronal decompensation improved from 2.2(±2.6) cm to 1.3(±1.6) with correction rate of 40.9%.the mean angular deformity measured by cobb method showed correction rate of: 65.1% in scoliotic group, 68.7% in kyphotic group, and 79.2% and 71.6% for the mean coronal and the mean sagittal cobb respectively in kyphoscoliotic group. The mean pain interference score improved from 6.2(±2.8) to 2.6(±0.7) with correction rate of 58.1%, and this was found to be statistically highly significant ($p<0.003$).

Discussion & Conclusion:

The PVCR is challenging technique associated with major and minor complications; however these complications do not prevent a successful clinical and radiological outcome at last postoperative follow up

027

MATCHED COMPARATIVE STUDY BETWEEN ACDF AND LAMINOPLASTY FOR 2-3 LEVELS CERVICAL MYELOPATHY, NEUROLOGICAL OUTCOME AND LATE KYPHOSIS

Mohamed Abdelrazek

Introduction:

Cervical myelopathy is a common cause of spinal cord dysfunction. For single-level compression, anterior cervical discectomy and fusion (ACDF) is the gold standard.Benefits for laminoplasty such as shorter operative time and maintenance of mobility have been proven for more than 3 levels of compression. However, for patients with pathologies involving 2-3 segments, the optimal surgical approach remains unclear.

Methods:

A retrospective study of an age matched-cohort of 47 patients with age ranged between 40 and 70 years (mean 60.9 for group A and 46 for group B) with minimum 2-year follow-up. All patients had 2 or 3 level compression causing myelopathy. Twenty two patients (Group A) were managed by 3 or 4 level laminoplasty kept open by miniplates at the University of Hong Kong, Hong Kong ,while 25 patients underwent ACDF using polyether-ether-ketone (PEEK) cages and anterior plates at Zagazig University Hospitals, Egypt (Group B).

Results:

JOA showed significant more improvement at final follow up in Laminoplasty

group (GROUP A) than in ACDF group (Group B) , P-value=0.00043.While Laminoplasty group (A) showed mean loss of lordosis of 4.62 degrees (median= 3.1) , the ACDF group (B) showed a gain of more lordosis of a mean of 7.96 degrees (median= 5) This difference was statistically significant (P-value = 0.0008) using Mann Whiteny U test.Laminoplasty cases were subdivided into two groups:
Lordosis group N=10
Kyphosis group (included cases with less than 10 degrees of cervical lordosis) N=10 There was NO significant difference in final loss of lordosis between the two subgroups. P value = 0.501.There was slightly more neurological improvement within the lordosis subgroup but it was NOT statistically significant, P-value =0.5602

Discussion & Conclusion:

While Laminoplasty had the advantage of better neurological recovery , ACDF had the advantage of prevention of late loss of lordosis.
Laminoplasty and ACDF are both reliable and comparable techniques in treating 2 or 3 level cervical myelopathy in cases with preoperative lordosis, straight or mild kyphotic alignment, with similar complication rate , patient satisfaction and post-operative neck pain.

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SHORT TERM FUNCTIONAL AND RADIOLOGICAL OUTCOMES OF VALGUS FEMORAL OSTEOTOMY IN TREATMENT OF PERTHES DISEASE

Shady Mahmoud

Introduction:

Perthes disease is a childhood femoral head osteonecrosis of poorly understood etiology. The annual incidence among children under age of 15 ranged from 0.2 per 100,000 to 19.1 per 100,000. Differences among race was noted with East Asians being least affected and whites most affected. (1)

Many classification systems exist for Perthes disease. The most important that may predict the prognosis of the disease is Herring classification system

and Stulberg classificatiom. Herring classification system is based on the height of the lateral pillar of capital femoral epiphysis in AP and lateral radiographs during the fragmentation stage. It is classified into group A (maintains the whole height), group B (maintains > 50 %), B/C border (maintains 50 %), and group D (maintains < 50 %). (2) Stulberg classification can be correlated to the osteoarthritis (OA) risk. It is classified into I & II with spherical head and no risk of OA, III (with ovoid head) & IV (with flat but congruent head) that are associated with mild to moderate OA risk, and V (with flat incongruent head) that is associated with severe OA risk. (3) The course of perthes disease is a controversy. While some authors believe that it has a benign long term prognosis. (4) Others believe that it may have poor long term sequale. (5) That is why the treatment of Perthes disease is a matter of dilemma.

The most important prognostic factors are the age of onset and the lateral pillar height on radiograpghs. Those who had a chronologic age of 8 years or less or a skeletal age of 6 years or less at the onset of the disease had good prognosis regardless the treatment while those who had a chronologic age more than 8 years or a skeletal age more than 6 years at the onset of the disease with Herring group C had poor prognosis regardless the treatment. Group B and B/C border in patients those who had a chronologic age more than 8 years or a skeletal age more than 6 years at the onset of the disease respond to the treatment better than non treatment. (6) Our hypothesis strategy in the surgical treatment of Perthes disease was the use of valgus femoral osteotomy followed by internal fixation. It was based on the fact that the main targets of surgical treatment should be directed toward symptomatic treatment of the disease as regard pain relief, maintaining equal limb length, and maintaining the abductors strength that could be achieved by valgus femoral osteotomy.

A thirty six cases with symptomatic Perthes disease were surgically treated by valgus femoral osteotomy and functionally assessed 5 -15 years using IOWA score with significantimprovements clinically and radiologically.

Discussion & Conclusion:

The best treatment option for Perthes disease is highly controversial. While varus femoral osteotomy has widely used in the surgical treatment of the disease aiming for containment of the femoral head that may help in the head remodeling and consequently delay the need of total hip replacement (THR) (7), there are many aspects contradict the use of this surgical method.

At first, the relation between perthes disease and OA is not typical. According to Stulberg classification, only aspherical incongruent cases carry the risk of severe OA development in the 5th decade. Also, there is no correlation between the symptoms and the osteoarthritic radiographic changes in Perthes disease. In addition, OA affects the medial compartment of the joint in Perthes disease rather than the superior compartment as usual which caries a better prognosis. (5) Secondly, the use of varus femoral osteotmy in the treatment of Perthes disease has many restrictions. Its effectiveness in providing a

remodeling potential is restricted to the cases in the early avascualr and fragmentation stages. So, its use in the reossification and healed stage is of questionable value. (8), (9) It is also restricted to the cases with skeletal age of 8 years or more especially group B and B/C border. (6) Sponseller et al even concluded that the use of varus femoral ostetotomy in patients older than 10 years had a poor result. (10) So its use may be only restricted to Group B and B/C border in patients aged 8 – 10 years in early avascular or fragmentation stages only.

Tertiary, although varus femoral osteotomy may relief pain that may be associated with the disease by providing containment, it exaggerates the symptoms of limping as it results in shortening of the affected limb. (11) It also exaggerates the trendelenberg gait by increasing the abductor weakness. (12), (13) Watanabe et al studied gait analysis after femoral varus osteotomy and disclosed that the stance phase time was shorter, cadence was faster, and the strength ratio of hip abductor muscles was lower in operated patients compared to non operated and healthy subjects. (14) We conducted a prospective non randomized case series study over symptomatic Perthes disease patients by treating them surgically using vlgus femoral osteotomy and fixation by internal fixation and observing them over 12 months with fuctional assessment using Harris Hip score and IOWA score.

We hypothesize that valgus femoral osteotomy can relieve the existing symptoms as regard pain, limping, and limb length discrepancy which are for many patients ma be the only problems encountering them for a long time and so to extend the use of valgus femoral osteotomy beyond salvage role in hinge abduction cases.

We admit the need of long term follow up for the cases treated by valgus femoral osteotomy as regard the extent of recurrence of pain later on in the presence of head deformity so to tailor its use for certain types of Perthes disease; and as regard the limitation of range of motion in abscense of containment.

Conclusion:

Valgus femoral osteotomy is a good option in symptomatic Perthes disease with good functional outcomes on short term follow up

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CAN PLATELET-RICH PLASMA SHORTEN THE CONSOLIDATION PHASE OF DISTRACTION OSTEOGENESIS? AN EXPERIMENTAL STUDY

Barakat El-Alfy

Introduction:

The purpose of this study was to evaluate the effects of platelet-rich plasma (PRP) on distraction osteogenesis

Methods:

Tibias of 36 New Zealand white rabbits were distracted at a rate of 0.25 mm/8

h for 20 days with a circular external fixator. The animals were randomly divided into a control group that did not receive PRP therapy and an experimental group, with PRP injection into the distracted area. Radiographic examinations were performed at the 10th, 20th, 30th, 40th and 50th days after end of distraction. By the 50th day after distraction, all animals were sacrificed, the external fixator was removed and the tibia was dissected. After that, each group was subdivided into two subgroups: one for pathological study and another one for mechanical study.

Results:
Radiologic scores were statistically similar at the 10th, 20th and 30th days. However, the experimental group demonstrated higher radiologic scores at the 40th and 50th days. Histopathologic examination revealed a statistically significant higher score in the experimental group. The PRP injected group showed an improvement of their mechanical properties.

Discussion & Conclusion:
The results of this study show that PRP has beneficial effects on new bone formation during distraction osteogenesis

085

COMPLEX DEFORMITY BY SIMPLE TECHNIQUE

Sameh Al Safty

Introduction:
child case presented by complex humeral deformity treated by simple ilizarov construct

Methods:
7 years old male child presented by angulated , severe internally rotated left arm with length discrepancy 4.3 cm .
treated by ilizarov (one ring distal and 5/8 ring proximal .

Results:
Angular deformity corrected accutly rotational deformity and length corrected gradually in one stage

Discussion & Conclusion:
In our hospital we do not have spatial taylor frame , we can treat complex deformity by simple ilizarov construct.

086

ILIZAROV DISTRACTION HISTOGENESIS IN RELAPSED CLUB FOOT

Mohamed Fadel

Introduction:
Conventional surgical treatment of relapsed club foot deformities is not

always successful or easy to apply. In this study we evaluate the use of the distraction histogenesis technique for management of relapsed club foot deformities.

Methods:
fifty three cases 2- 6 years old with relapsed club foot deformities with history of average 3 previous operations (range, 1-8 operations).This thesis based on 50 consecutive cases (61 feet), of average age 4 years and 3 months (range, 2- 6 years). We used preoperative assembly of the leg construct of the apparatus but ankle and foot construct was designed according to the condition of deformity. Results: The range of operative time was 1 – 2.5 hours (average of 1.5 hours). Average time in the fixator was 18weeks (range, 10 weeks - 30 weeks). After fixator removal cast was applied for one month, followed by night splint and special shoes for their daily activities. The average follow-up period was 42 months (range, 36 - 84 months) after fixator removal. The results were: good in 42 feet, fair in 7, bad in 4.

Discussion & Conclusion:
Ilizarov The range of operative time was 1 – 2.5 hours (average of 1.5 hours). Average time in the fixator was 18weeks (range, 10 weeks - 30 weeks). After fixator removal cast was applied for one month, followed by night splint and special shoes for their daily activities. The average follow-up period was 42 months (range, 36 - 84 months) after fixator removal. The results were: good in 42 feet, fair in 7, bad in 4.

087

PERCUTANEOUS HIGH TIBIAL CORTICOTOMY AND CASTING FOR TREATING GENU VARUM DEFORMITY IN ADOLESCENTS

Haytham Abdel-Moneim

088

NEUTRAL WEDGE OSTEOTOMY IN THE MANAGEMENT OF LARGE ANGULAR DEFORMITIES AROUND THE KNEE JOINT

Barakat El-Alfy

Introduction:
Angular deformity around the knee joint is a common orthopedic problem. Many options are available for the management of such problem with varying degrees of success and failure. The aim of the resent study was to assess the

results of neutral wedge osteotomy in the management of big angular deformities about the knee joint.

Methods:

Twenty-eight limbs in 21 patients with large angular deformities around the knee joint were treated by the neutral wedge osteotomy technique. The agesranged from 12 to 43 years with an average of 19.8 years. The deformity ranged from 20- to 40-with a mean of 30.39-± 5.99-. The deformities were genu varum in 12 cases and genu valgum in 9 cases. Seven cases had bilateral deformities. Small wedge was removed from the convex side of the bone and put in the gap created in the other side after correction of the deformity.

Results:

At the final follow-up, the deformity was corrected in all cases except two. Full range of knee movement was regained in all cases. The complications included superficial wound infection in two cases, overcorrection in one case, pain along the lateral aspect of the knee in one case and recurrence of the deformity in one case. No cases were complicated by nerve injury or vascular injury.

Discussion & Conclusion:

Neutral wedge osteotomy is a good method for treatment of deformities around the knee joint. It can correct large angular deformities without major complications

later approach of the distal femur was used to expose the fracture site, ipsilalateral nonvascularized fibular harvest according to length of the defect, the fibla was cut in two halves , The fibula was put centrally in canal and medial l to restore deficient medial cortex , augmentation with cancellous bone graft(autologus in 8 and allograft 5 cases) and application of fixation device(plade plate or circular frame).

Results:

The overall functional outcome was assessed using the criteria of Neer et al. This is based on 6 variables which describe the subjective, functional, and anatomical condition of the patient. The mean follow-up period was 32 months (range, 15–50 months). Radiographic union was achieved by a mean of 6months (range, 5–11months).

A 90 degree knee flexion was achieved in 9 case at final follow up. Quadricepsplasty was done in one case to improve knee range of movement in enternal fixator cases which has fixed with tibiofemoral external fixator for three months before referral to us, the range of motion has been increased to 95 degrees.

The functional outcome was satisfactory(score 73-89) in 12 cases while the

outcome was unsatisfactory (score 60) in 1 case who had Grade IIIB fractures

Discussion & Conclusion:
surgical reconstruction with Non vascularized Double-barrel fibular graft, fixed with either blade plate or Ilizarov ring fixation is a suitable option for treatment of distal femoral fractures with metaphyseal defect where union had been achieved with satisfactory functional outcome.

089

ANGULAR DEFORMITIES OF DISTAL FEMUR IN ADOLESCENTS: CORRECTION BY OPEN-WEDGE OSTEOTOMY AND SIMPLIFIED EXTERNAL SKELETAL FIXATION

Mahmoud El-Rosasy

Introduction:
Correction of angular deformities of the distal femur remains to be controversial in terms of osteotomy technique and fixation method. The main concerns during correction of such deformities are accuracy of correction, stability of fixation, healing potential and early patient's mobilization.

Methods:
Patients: In this prospective study, thirty patients (40 limbs) (ten bilateral deformities and 20 unilateral) diagnosed as having coronal plane angular deformities due to various aetiologies. Their ages ranged from 13 to 17 years. There were 22 male and eight female patients.
Methods: In all cases, a unilateral external fixator (fashioned from Ilizarov frame components) was attached to the distal femur through half pins. An oblique open-wedge osteotomy was performed percutaneously using multiple drill holes and osteotome. No bone graft was used in any case.

Results:
Bone consolidation and correction of the deformity to the normal values were achieved in all cases. The main problems in this series were limitation of knee flexion during treatment due to tethering of the iliotibial tract by the distal pins and frequent superficial pin tract infection. The aforementioned problems were manageable and did not affect the final outcome.

Discussion & Conclusion:
our technique as described is minimally invasive and yields gratifying outcome both to the patient and treating surgeon. It allows postoperative fine-tuning of deformity correction and early weight bearing in this young and active population.

090

HOW WE CAN REDUCE THE EXTERNAL FIXATOR TIME? IS THE CHANGE TO INTERNAL FIXATOR AN OPTION?

Theddy Slongo

091

RECURRENT RESISTENT EQUINOVARUS DEFORMITY IN ARTHROGRYPOSIS: TREATMENT BY TALECTOMY AND MODIFIED ILIZAROV EXTERNAL FIXATOR

Ashraf Atef Mahmoud

Introduction:

Talectomy has been described in the management of the rigid talipes equinovarus that is seen in some cases of arthrogryposis multiplex congenita. Failure of soft-tissue release operations when used in the management of the gross equinovarus deformity is sometimes encountered in this condition

Methods:

Ten feet with recurrent severe equinovarus deformity were treated in five patients with arthrogryposis multiplex congenital. The procedure included complete excision of the talus through Olier approach on the antero-lateral aspect of the foot. Then the foot and ankle were held in the plantigrade position using a simplified Ilizarov external fixator for eight weeks followed by a below knee walking cast for four weeks then prolonged use of plastic splint to maintain the foot position

Results:

No neurovascular injury occurred due to deformity correction. The plantigrade position of the foot was maintained with no recurrence of deformity

Discussion & Conclusion:

Talectomy provides acute and relatively safe correction of severe recurrent equinovarus deformity in arthrogryposis.

092

HIND-FOOT ENDOSCOPICALLY ASSISTED MINI OPEN TREATMENT FOR HAGLUND'S DEFORMITY

Waleed M. Ewais

Introduction:

Hind-foot endoscopy is used to reach most intra-articular structures of the ankle. It allows the surgeon to reach both the posterior joint space and the extra-articular compartment of the hind foot with the endoscope and instruments, regardless of diagnosis. The posterolateral and posteromedial

hindfoot portals provide excellent access to the posterior aspect of the ankle

Methods:
The posterolateral and posteromedial hindfoot portals provide excellent access to the posterior aspect of theankle. We present acase of chronic retrocalcaneal bursitis presenting with heel pain and not responding to non-surgical measures since 18 months bursitis

Discussion & Conclusion:
that hind foot endoscopy can serve as a safe and alternative treatment in retrocalcaneal

093

EVALUATION OF ILIZAROV ROLE IN CORRECTION OF RELAPSED CLUBFOOT

Moawed Farghly El-Adawy

Introduction:
About 20% of operated clubfeet developed recurrence or show a marked residual deformity. The failure of concentric reduction at the time of initial surgery has to be considered as a main factor. Residual forefoot adduction and supination are the most common persistent deformities. The incidence of relapse recently recorded as 50%. Conventional management techniques tend to have many disadvantages including neurovascular injury, soft-tissue problems and a shortened foot.

Methods:
We present our experience in correction of 20 relapsed clubfeet deformities managed by gradual correction using Ilizarov frame without soft tissue release or bony procedures. The age at time of operation ranged from 3 to 7 years with mean 4.4 years ± 1.31. The time of fixators utilized for correction ranged from 6 to 8 weeks with mean 7.09 weeks ± 0.37. This was followed by 6 weeks of short leg cast. The patient followed in custom made shoes. The follow up period ranged from 24 to 31 months with mean 27.68 months ±1.91.

Results:
The results were 8 feet (40%) achieved excellent results, 6 feet (30%) achieved good results, 4 feet (20%) achieved fair results and 2 feet (10%) achieved poor results. Complications were reported as pin tract infection in 6 feet, residual forefoot adduction in 4 feet, joint stiffness in 4 feet, toes flexion deformity had occurred in 2 feet and radiological osteopenia in 2 feet.

Discussion & Conclusion:
The results in our work, which included 20 feet, showed that the simplified Ilizarov frame technique is effective in management of the relapsed or

untreated foot deformities in young and elder children, and this indicates that the simple frame can achieve the correction reported in other reports. The technique is well suited to the management of severe relapsed foot deformities when more dissection or surgical intervention are contraindicated due to the size of the foot or the vascularity, the number of previous operations, the age of the patient and compromise of the soft tissues.
One major limitation in our work which is short time of follow up (not more than 31 months), this may affect the superiority of our results in comparison to results of other authors
Conclusion:
The Ilizarov technique in relapsed complex foot deformities correction enables correction of individual components of the deformity at rates that may be tailored to achieve accurate three-dimensional control using an easy to handle, light, cheap and simple frame.

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A SAFE PERCUTANEOUS REPAIR OF ACHILLES TENDON RUPTURES

Emad Zayed

Introduction:

Controversy exists regarding the optimal treatment for acute Achilles tendon ruptures. Conservative and surgical treatments have been reported with variable results and complications rates. The purpose of this study is to evaluate the postoperative clinical and functional results of percutaneous repair of acute Achilles tendon ruptures.

Methods:

Between November 2013 and January 2016, 14 patients who had sustained a complete rupture of the TA, were treated using the percutaneous technique. There were 11 men and 3 women with a mean age of 35 years (27 to 46). The main causes of injury were fall following twist injury (8) and football (4). Clinical examination and tendoachillis MRI was done for all patients. The tendon was repaired under spinal anesthesia in 10 cases and general anesthesia in 4 cases and within a mean of 10 days (2 to 17) of injury.

Results:

All patients had recovered a full range of ankle movement at the latest follow up. The mean time interval from repair to return to work was 8 weeks and the return to sport was 24 weeks. One patient developed a stitch irritation related to the distal wound which was improved with time. There were neither re-ruptures nor sural nerve injury.

Discussion & Conclusion:

This study showed successful clinical and functional results after percutaneous repair of acute Achilles tendon ruptures

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SINGLE INCISION FLEXOR HALLUCIS LONGUS TENDON TRANSFER IN CHRONIC ACHILLES TENDON RUPTURE

Ahmed Mahmoud Badri

Introduction:

Chronic Achilles tendon rupture can cause prolonged morbidity and disability unless treatment is appropriate. FHL tendon transfer is now considered the gold standard modality for the management of chronic ATR. Our study is designed to evaluate the role and results of FHL tendon transfer in chronic ATR through a single incision.

Methods:

Follow-up on 15 patients (eleven men and four women with average 40.3 + 17.5 years age) who underwent our surgical technique with an average 6 months follow-up. The etiology was degenerative in eight cases, traumatic in the other seven. All patients were evaluated by comparing pre-operative and post-operative AOFAS scores, post-operative complications, quality of life changes and patient satisfaction.

Results:

The average operative time was 105.3 +16.2 minutes. The mean pre-operative AOFAS score was 56.9 +8.6 (range 28-66), the mean final follow up AOFAS score was 94.3+5.1 (range 88–100). Complications included three cases comlicated by superficial wound infection which had complete resolution by daily dressing and a good antibiotic coverage. All patients stated that they are satisfied about the surgery results and that they had better quality of life post-operatively compared to the pre-operative state.

Discussion & Conclusion:

This study demonstrated that direct transfer of FHL to the calcaneus through a single incision with interference screw fixation provides low morbidity and reliable outcomes for patients that have sustained chronic TA ruptures.

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RECONSTRUCTION OF EXTENSIVE ACHILLES TENDON DEFECTS IN ELDERLY WITH A MODIFIED FLEXOR HALLUCIS LONGUS TENDON TRANSFER

Ahmad El-Tantawy

Background Insertional Achilles tendinopathy is a degenerative disease associated with disabling posterior heel pain, gait dysfunction and significant morbidity. The aim of this prospective study was to evaluate the outcomes of

complete excision of the pathological Achilles tendon (AT) segment in elderly patients with extensive involvement, and reconstructing the defect using a modified technique which was proposed to be able to allow early weight-bearing and rehabilitation.

Patients and Methods Thirteen patients (mean age 58.2 years) with extensive insertional Achilles tendinopathy (7 patients with spontaneous rupture and 6 without rupture) were operated between January 2008 and July 2012. The average tendon gap after thorough debridement was 6.8 centimeters. All patients were reconstructed with flexor hallucis longus tendon transfer augmented with a modified turn-down flap. The mean follow-up period was 24.5 months.

Results The mean AOFAS hindfoot score improved from 57.5±8.44 pre-operatively to 98.3±1.01 at final follow-up ($p<0.001$)). Complete pain relieve was achieved in 10 patients while the other 3 patients had mild occasional pain on maximal exertion. Eleven patients (84.6%) had excellent results and 2 (15.4%) had good results. There was no single case of re-rupture and two patients acquired superficial wound infection which was resolved conservatively.

Conclusions The modified technique provides a transfer with sufficient length and strength that can restore large AT defects in the elderly and is stable enough to allow early protected weight-bearing and rehabilitation with favorable clinical result and minimal morbidity. Resection of all degenerated tendon tissue alleviates pain and improves function.

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DOUBLE COLUMN FOOT OSTEOTOMY TO CORRECT FLEXIBLE VALGUS FOOT DEFORMITY IN CHILDREN WITH SPASTIC CEREBRAL PALSY

Sherif Naseef Girgis Bishay

Introduction:

Mobile (flexible or correctable) hindfoot valgus deformity is common in children with spastic cerebral palsy (CP). It is accompanied by short lateral and long medial foot column.

Methods:

Eleven ambulatory children (20 feet) suffering spastic cerebral palsy (CP), two hemiplegic and nine diplegic, presenting with mobile (flexible) hindfoot valgus deformity, were evaluated neurologically, orthopaedically, and radiographically, and operated upon in the National Institute of Neuromotor System between September 2012 and September 2013. Double column foot osteotomy with medial cuneiform closing-wedge and cuboid opening-wedge without attacking the calcaneus was performed in all of them.

Results:

The results were followed-up clinically and radiographically over a period ranging from a year and half (18 months) to two years (24 months) with an average of a year and 9 months (21 months), and were graded into four categories as excellent, good, fair, and poor according to the total calculated score. According to the suggested grading system, there were 8 excellent results, 8 good results, 4 fair results, and no poor results.

Discussion & Conclusion:

Double column foot osteotomy shortening the medial foot column and lengthening the lateral foot column to correct moderate to severe hindfoot valgus in ambulatory children with spastic cerebral palsy (CP), compared favourably with similar series, and offered option for achieving foot alignment, improving pain and skin problems and avoiding the problems associated with arthrodesis.

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ARTERIAL TREE ANOMALIES IN PATIENTS WITH CLUBFOOT

AN INVESTIGATION CARRIED OUT AT SOBA UNIVERSITY HOSPITAL UNIVERSITY OF KHARTOUM

Samir Shaheen

Congenital club foot (Congenital TalipesEquinoVarus CTEV) is a common foot abnormality in childhood. In spite of being as old as mankind, the actual cause is still unclear; blockage of one or more arterial branches at the level of the sinus tarsi, early in the foetal development, has been suggested to be a cause. Indeed,other vascular deficiencies were also postulated.

We studied here the arterial tree in feet of 49 patient with idiopathic TEV, abnormalities found were compared to those same arteries in a cohort of 16 normal children with normal feet.

Based on our own observationthat, some patients develop dorsal foot skin necrosis after club foot surgery, the clinical importance of thisanatomical abnormality was stressed upon. This is supported by reports from many other authors who also observed, and reported, necrosis of the skin in the dorsal aspect of the foot which complicates clubfoot surgery in anterior tibial artery and dorsalispedis deficient cases.

Sometimes a crossing vessel from the posterior tibial artery to the anterior tibial artery territory in the dorsum of the foot is seen during posteromedial release(PMR) operations. The anterior tibial artery was found deficient in the majority of patients. The clinical importance of the crossing vessel from the posterior tibial artery to the anterior tibial artery territory when found and the

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DELAYED SELECTIVE NEUROTIZATION FOR RESTORATION OF ELBOW AND HAND FUNCTIONS IN LATE PRESENTING OBSTETRICAL BRACHIAL PLEXUS PALSY

Mohamed Mostafa Kotb

Introduction:

The published experience of obstetrical brachial plexus palsy (OBPP) cases with poor recovery and late neurosurgical intervention are sparse

Methods:

This study included 19 cases
who presented after the age of 1 year with poor recovery of elbow and/or hand function and electrophysiological evidence of reinnervation. Age at surgery averaged 41 months, and the follow-up averaged 50 months. Distal neurotization was performed for restoration of elbow flexion in 11 cases, elbow extension in 3 cases, and finger flexion and/or sensibility in 5 cases.

Results:

Active elbow flexion increased from an average of 2.7 to
91.8 degrees with an average gain of 89 degrees. Active elbow extension increased from an average of 10 to 56.7 degrees with an average gain of 46.7 degrees. Although, three out of five cases (60%) showed satisfactory recovery of finger flexion, all cases scored < 2 using Raimondi score. Four cases gained protective sensation and one case gained discriminative sensation. The results of neurotization in late OBPP are variable.

Discussion & Conclusion:

The best
and most consistent results are obtained by necrotizing the biceps by the intercostal nerves or, in selected cases, by the flexor carpi ulnaris fascicle of the ulnar nerve. Delayed neurotization is the only way to recover sensory function in the hand.

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RESULTS OF CEMENTLESS TOTAL ELBOW ARTHROPLASTY (TEA) USING THE DISCOVERY® ELBOW SYSTEM AT A MEAN FOLLOW UP OF 57.6 MONTHS

Ahmed Abdelwahab Elsheikh

Introduction:

There is limited literature and results available on the use of a cementless TEA design. This clinical study reports the outcome of the cementless Discovery® Elbow System

Methods:

Patients were operated on between 2007 and 2014 by single surgeon. Nineteen patients (20 elbows) were available for review, 2 women (1 bilateral TEA), and 17 men. The patient age ranged from 27 to 75 years old (mean 48yrs). The mean follow up was 57.6 months (range, 12 - 145 months). Patients were assessed for range of motion, pain and satisfaction level. Outcome scores included the Mayo Elbow Performance Score (MEPS), Liverpool Elbow Score (LES) and the SF-12v1. Radiographs were reviewed to evaluate for loosening.

Results:

The mean MEPS was 80.25 and the mean LES was 6.70. The mean flexion range was 122° and the mean extension lag was 36.25°. The mean pronation was 59.21° and the mean supination was 52.37°. Radiologically there were no

signs of loosening, however in 2 cases non-progressive radio-lucent lines were observed. No signs of infection were detected at final follow up and no elbows were revised. More than 90% of patients were satisfied with the

Discussion & Conclusion:

The cementless TEA offers a reliable option for treatment in varying elbow pathologies, long term results are needed to assess the survivorship of this design.

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ELBOW TERRIBLE TRIAD, TREATMENT PROTOCOL AND OUTCOME

Mokhtar Abdul Azeem

Background

The terrible triad is an uncommon injury, which includes an elbow posterior dislocation with fractures of the radial head and coronoid process of the ulna. In addition there is rupture of the lateral and medial collateral ligaments. The short-term and long term results are historically poor, with a high rate of complications.

The main objective of this study is to report the results of a patients who sustained the terrible triad injury focusing on surgical treatment in order to offer a standardized surgical protocol.

Patients & methods

Surgical treatment of seventeen terrible triads from 169 elbow dislocations were done. At an average follow up of 19.5 months (range 7-36). Surgery was attempt to restore stability by preserving the radial head whenever possible or replacing it with prosthesis otherwise, by repairing the lateral collateral ligament and performing fixation of the coronoid fracture. If after anatomical restoration of stability elements, the elbow remains unstable, options include repair of the medial collateral ligament or stabilization assumed by hinged external fixator.

Results

Postoperatively, all seventeen patients returned for clinical examination, functional assessments and radiographic evaluation.The mean Mayo Elbow Performance Score (MEPS) was 78 (25-100) points; which correspond to 4 excellent, 10 good, 2 fair & 1 poor results.Mean flexion was 135°.Mean extension deficit was 21°. 14 patients (82%) had a normal pronation. 13 patients (82%) had a normal supination

According to the criteria of Morrey; 14 patients had a functional arc of motion

Radiographic evaluation: 1 non-union of the radial head & 6 non-unions of the coronoid process. HO. 9 of the 17 patients.Complications were reported: Wound dehiscence in 2 patients, HO. affecting elbow ROM in 2 patients treated by early excision and post operative low single dose radiation, Radial head non union in one patient treated by late excision and the elbow was stable after excision.

Conclusion
Management of terrible triad of the elbow remains a significant challenge for orthopedic surgeons. They must restore the integrity of the elbow repairing all structures, using a standardized surgical protocol, which gives the best results and prognosis by restoration of the elbow stability

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OPERATIVE TREATMENT OF OS CALCIS FRACTURES – A STRICT MANAGEMENT PROTOCOL CAN PRODUCE GOOD LONG-TERM RESULTS

Mohammed Diab

Introduction:
Calcaneal fractures are usually high-energy injuries with a significant soft tissue component and the typical patient usually is a young active individual. Although the advent of low profile plates and a better understanding of fracture patterns with computerised tomography have led to an increase in popularity of operative treatment, there is still no consensus on the appropriate method of treatment.

Methods:
This is a retrospective single surgeon series of 80 calcaneal fractures operated on between 2005 and 2014. Our Patient related inclusion factors were physiological age below 75, non-smoker, patients without peripheral neuropathy or vasculopathy and patients medically fit for surgery. Our injury related inclusion factors were joint depression, posterior facet damage, reduced Bohler's angle, lateral wall blowout and varus of heel

Results:
We had a mean follow-up of 72 months (12-130).The mean time for return to

previous vocation was 5.5 months. Mean Foot and Ankle Disability index scores were78.62 and SF 36 scores were 45.5 (physical component) and 52.6 (mental component). Mean Kerr Atkins score was 72 (36 - 100)

Discussion & Conclusion:

These are complex injuries and should be managed by a specialist team. The operative treatment restores the anatomy in terms of correcting the varus of heel, lateral wall blowout and the subtalar joint congruity. Thus even if a small subgroup go on to need subtalar fusion they have a better outcome than those in which there is wide or varus heel. We believe this in itself provides a strong case for operative treatment in appropriate cases.Thus we propose that operative treatment still has a major role to play on the management of these difficult fractures. The overall management should be in the hands of specialist foot and ankle teams and clear selection criteria and strict pre, intra and postoperative management protocol should be followed.

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SURGERICAL TREATMENT OF INTRAMEDULLARY SPINAL CORD TUMORS

Oleksandr Voznyak

Background:

Intramedullary neoplasms are rare pathology of CNS with frequency of 0,4-1,1 per 100 000 population. In spite of spinal cord (SC) vulnerability patients usually appear in neurosurgical facilities rather late after the onset of symptoms. Majority of intramedullary neoplasms are benign and microsurgical resection can often provide necessary improvement, although wrong treatment approaches can often lead to catastrophic functional consequences.

Material and methods:

This is a retrospective analysis of 19 consecutive patients (age 14-67 years, average 32 y, male to female ratio 11/8) with IMSCT operated in our facility from 2009 to 2016 (20 surgeries were performed). Progressing segmental and distant neurological symptoms and probability of their regression after tumor resection or spinal cord decompression were the main indications for surgery. All surgeries performed through posterior approach (laminoplasty in 3; laminectomy in 10 (50%), laminetomy with posterior transpedicular fixation in 4 (20%) and durolysis in 3 (15%) of surgeries. Fibrillary and protoplasmic astrocytomas were diagnosed in 7 cases (35%), ependymomas in 5 (25%), subependymomas in 2 (10%), myxopapillaryependymoma in 1 (5%), hemangioblastomas in 3 (15%), dermoid in 1 (5%), ganglioglioma with anaplastic transformation of astrocytic component in 1 (5%) and metastatic medulloblastoma in 1 (5%) case. Median myelotomy as a shortest way to the tumor was chosen in 18 (90%) and DREZ meylotomy in 2 cases (10%). 2 patients were previously operated in other institutions and reoperations were performed in 12, 6 and 2 years after previous surgeries. Sufficient bone approach, spinal cord relaxation through CSF draining and cyst draining, avoidance of efforts to resect infiltrative tumor were considered as fundamental steps of surgery. Follow up was 5-81 months.

Results:

Subtotal or partial resection was done in all cases of infiltrative tumors (all fibrillasryastrocytomas, one patient with ependymoma, and in patients with

malignant neoplasms), in all other cases (ependymomas, subependymomas, hemagioblastomas, dermoid) resection was total. Only in patients with anaplastic ganglioglioma and metastatic medulloblastoma we considered stable neurological symptoms and worthening respectively; neurological improvement was found in all other cases. Even cyst draining alone was frequently sufficient for SC decompression and partial neurological recovery. Fortunately we had no mortality or significant morbidity. In our limited experience patients with tumors of the spinal cord had good prognosis after microsurgical resection after carefully planned surgeries, radical resection while appropriate and sufficient SC decompression.

Conclusions: Considerable radical resection provided good prognosis for patients with non-infiltrating IMSCT. Even partial removal with sufficient decompression led to good long-term functional outcomes. Histological nature of the tumor was the main factor that predefined extent of resection. Microsurgical resection of IMSCT can be recommended as a method of choice and first step in treatment of IMSCTs.

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MANAGEMENT OF DEGENERATIVE SPINE DISEASE AND SCOLIOSIS THE NEW CHALLENGE TO SPINE SURGEONS IN DEVELOPING COUNTRIES

Mohamed Maziad

Degenerative scoliosis is the end phase of degenerative cascade that is going on very slowley in human bodies.The clinical presentations depend of the spesiefic stage of degeneration.Early stages with disc prolaps and nerve roat compression

Requiers simple discectomy,while sever degrees of scoliosis with loss of spinal balance in coronal and saggital planes requiers global assessment and long segments fixation.Degenerative scoliosis may be associated with perivous corrective surgery during adulthood ,that will affect the spinal addaptation to the new corrective procedures.

Patients co morbidities and general risk factors limit the surgical options that could be offerd to every particular patient,and makes non operative treatment as the standard option specialy in ouer developing contries with skared pationt to have surgery .

To crossover that challage , surgeons have to select the less invasive options , to limit open surgical interventions by proper targeting to the sources of pain and lcalize their surgery to speciefic segments in well balanced spine which is not in need to longer fixation.Miss tehniques should be givien higher priorites.

Magior corrective surgery at elder ages should be calculated againest the risk factors to atchieve the goals of our interventions which are patient should have pain free life at resting and motions,good quality of active life in working and social activities .

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SURGERY FORAMEN MAGNUM MENINGIOMAS

Oleksandr Voznyak

Introduction:
Foramen magnum meningiomas (FMM) are challenging in terms of surgical management

Material and methods: From 2009 to 2016 year 11 FMM patients were operated on in our clinic. Location of represented tumors were: anterior - 6(54,5%); lateral – 4 (36,3%); posterior – 1 (9,1%). Following approaches were applied: transcondillar-7, posterior midline-1, posterolateral-3.

Results: Total or subtotal tumor removal had been performed (Simpson Grade I-III) in all of 11 cases. In all cases clinical improvement was achieved. Minor surgical complications resolved by the time of patients dismissing from the hospital. There were no lethal cases.

Conclusion: In our limited personal experience, patients with FMM had good prognosis if the tumor was removed completely what was usually possible if there were no adhesions or encasements of vessels or/ and cranial nerves. Therefore, early diagnosis is mandatory. A Simpson Grade I and II resection (gross total) is the goal of surgery to avoid recurrence or to prolong time to remission for this usually slow-growing tumors.

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TREATMENT OF SPINAL CANAL STENOSIS AT ELDERS BY NEURAL DECOMPRESSION AND POSTERIOR DYNAMIC STABILIZATION

Mohamed Maziad

Degenerative cascade is natural process of aging that starts at youg ages and keeps going on

through elder ages in a contenius mannar.

Clinical presentations varies among different age groups according to changes in the facet joints,intervertebral discs and neural canals.

Main presentaions are chronic back pain.radicular pain ,neurogenic claudication and neural defiecets.

Open surgical decompression and fixation are used as the standard option of treatment.

New innovations over the last two decades in the form of posterior dynamic stabilization devices are well known and many devices are in the spine market at present time.

The aim of that presntation is to

1- discuss the degenerative cascade and it's clinical effects

2-recommend the less invasive options for treatment of patients at elder ages (above 70 years)

3- to classiefie the different posterior dynanic devices

4-give the auther openion in relation to device selection in different situations according to clinical and radiological findings

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HYPOVITAMINOSIS D AMONG PATIENTS ADMITED WITH HIP FRACTURE TO A LEVEL-1 TRAUMA CENTER IN THE SUNNY UPPER EGYPT: PREVELANCE AND ASSOCIATED CORRELATES

Mohamed Moustafa Alaa Eldin

Introduction:
Despite abundant sunshine, hypovitaminosis D is common in the Middle East. The aim of this study was to determine the prevalence of hypovitaminosis D and related correlates among patients with hip fracture in Assiut University

Hospitals in Upper Egypt.

Methods:
A cross-sectional study was carried out in 133 patients with hip fracture, aged 50 years and older, admitted to Trauma Unit of Assiut University Hospitals, from January through December 2014. Patients were selected by systematic random sampling. Serum 25-hydroxy vitamin D level was measured by enzyme-linked immuno- sorbent assay; bone mineral density (BMD) by dual-energy X-ray absorptiometry. Weight and height measurements were used for body mass index (BMI) calculation.

Results:
Patients' median age was 70 years (range: 50-99); 51.9% were females. Osteoporosis (femoral neck T score: < 2.5 standard deviation) prevalence was 72.2%. Of all patients, 60.9% had vitamin D deficiency (<20 ng/mL); 15.8% reported vitamin D inadequacy (from 20 to 29 ng/mL) and vitamin D levels were normal in 23.3% (>30 ng/mL). According to univariate analysis, vitamin D deficiency was significantly associated with obesity (P ¼ .012) and low T scores of the femoral neck (P ¼ .001), L2 (P ¼ .021), L3 (P ¼ .031), L4 (P ¼ .012), and the greater trochanter (P < .001). In a multivariable logistic regression model, high BMI and low BMD of the femoral neck and greater trochanter were associated with hypovitaminosis D.

Discussion & Conclusion:
Prevalence of hypovitaminosis D is high among patients with hip fracture and associated with low BMD and high BMI. Increasing awareness about prevention as well as detection and treatment of vitamin D deficiency is recommended.

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EARLY RESULTS OF LIMB LENGTHENING FOR CONGENITAL SHORT FEMUR

Belal Abdelrafea

Introduction:
Congenital short femur is a rare condition, ranging from absence of the entire bone with abnormal development of the pelvis to the least severe form where a femur of normal shape is smaller than that on the other side. Clinical and radiological evaluation of the patient is very important to detect all charterers of the deformity Treatment usually include multiple operation to achieve leg lengthening, stability of hip and knee joints and to correct associated deformities

Methods:
5 patients with congenital short femur were managed by lengthening using ilizarov apparatus

Results:

All patient were followed clinically and x ray post operatively and every 2 weeks till obtaining desired length and full consolidations They were followed for one year and the results were good to excellent

Discussion & Conclusion:

Congenital short femur is complex and need meticulous assessment and management should include other associated lesions Ilizarov apparatus is effective for lengthening with good results as it permit correction of multiple deformities in one procedure

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ADDUCTOR TENOTOMY AND PETRIE CAST APPLICATION CAN EFFECTIVELY IMPROVE THE RANGE OF HIP JOINT IN EARLY STAGES OF PERTHES' DISEASE

Mohamed El-Areeny

Introduction:

It is not uncommon in children within early stages of Perthes' disease to present with a limited range of hip motion, particularly abduction and internal rotation. A good number of these patients are eligible for surgical containment. However, a fair range of hip motion is necessarily required before surgery. Unfortunately, physiotherapy is not usually associated with a good outcome

Methods:

Fourteen patients with a mean age of 7.6 years who had Perthes' disease were included. They had unilateral Perthes' disease with range of abduction and internal rotation less than 15 º and 10 º respectively. All failed to show improvement after at least 6 weeks of physiotherapy. Selective adductor longus myotomy and Petrie cast application were done. Range of motion was measured pre-operatively, intra-operatively and at 3 months from tenotomy.

Results:

Nine patients were older than 8 years old and the other 5 were younger than eight. At latest follow-up, their average range of hip abduction improved from 5º (range, 0-10 º) to 35 º (range, 20-45 º), while internal rotation range improved from 5 º to an average of 25º (range, 10-30 º).. Eleven of them (78, 5 %) were followed-up for an average of 8 weeks (range, 6-10) till having the pre-planned surgical containment. The remaining 4 have a longer average of follow-up period; 33 months (average, 12-59).

Discussion & Conclusion:

We believe that adductor tenotomy and Petrie cast application can be reliably used to improve the range of hip motion in patients with Perthes' disease who have limited range and showed no response to physiotherapy

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SUBMUSCULAR LOCKED PLATE IN FIXATION OF PEDIATERIC FRACTURE FEMUR USING CLUSTER TECHNIQUE

Mohamed khaled Hassan

Introduction:

Pediatric fracture shaft femur is a common pediatric fracture. There is controversy about the best fixation tool in the age from 6 to 12 years.
The purpose of our study is to evaluate the role of submuscular locked plating in fixation of pediatric femoral shaft fractures

Methods:

A prospective study of 30 patients with fracture shaft femur. 18 were males 12 were females. Mean weight was 23.5kg. Fixation of all cases was done with submuscular locked plate with cluster technique of screw placement and using narrow locked DCP.

Results:

All fractures healed with mean duration of union 6 weeks. No intraoperative complications were encountered. No cases were reported in our study of non-union or malunion. No cases developed infection. Metal removal was done in 20 patients.

Discussion & Conclusion:

Submuscular locked plate with cluster screw placement is a useful option for fixation of all fracture pattern of pediatric fracture shaft femur.

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CROSSED-ENTRY PINNING VERSUS TWO-LATERAL-ENTRY PINNING FOR PEDIATRIC EXTENSION TYPE III SUPRACONDYLAR FRACTURE HUMERUS

Michael Girgis Waheeb Tawfeek

Introduction:

Pediatric supracondylar fracture humerus represents 55% to 75% of elbow fractures, and 65.4% of pediatric upper extremity fractures. Closed reduction and percutaneous pin fixation have become standard care for extension type III supracondylar fractures of humerus in children.
But, controversy still persists regarding efficacy of crossed-entry pinning versus two-lateral-entry pinning for percutaneous fixation of these fractures.

Methods:

Study was a single-center, prospective, randomized controlled clinical trial,

including 30 patients (average age is 5.07 ± 1.6 years old), with crossed-pinning technique was used in 15 patients (group A), and two-lateral-entry-pinning technique was used in 15 patients (group B). At final follow-up, following information were recorded as outcome measures: (i) carrying angle, (ii) elbow passive ROM, (iii) Flynn's criteria, (iv) Baumann angle, (v) change in Baumann angle between intraoperative radiographs after surgery and radiographs at three months follow-up visit, (vi) Skaggs criteria.

Results:

There were no significant differences between two groups with regard to carrying angle, elbow passive ROM, Flynn grading, Baumann angle, change in Baumann angle and Skaggs criteria.
But with regard to operative details, there were significant differences between two groups as group A has longer operative time, has higher radiation exposure; as number of radiation sessions, radiation dosage and radiation time are higher in crossed-pinning technique.

Discussion & Conclusion:

Crossed-entry technique should be limited only to experienced surgeons as this technique is more time consuming, has more radiation exposure to both surgeon and patient.

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PERIOPERATIVE DIFFICULTIES AND COMPLICATIONS WITH THE FIXATION OF UNSTABLE PAEDIATRIC PELVIC RING INJURIES

Mohamed Omar Kenawey

Introduction:

The literature describing the operative treatment of unstable paediatric pelvic ring injuries and the most commonly encountered perioperative difficulties is sparse

Methods:

Twenty-six paediatric patients how have operative fixation of unstable pelvic injuries were included in our study. Six patients had fracture pelvis type B while 20 had Tile's type C injuries

Results:

Intraoperative difficulties were mainly during posterior ring fixation due to either: (1) the peculiar pathoanatomy of posterior ring injuries in immature

pelvis and the common association of iliac crest apophysis avulsion, found in 7 patients who were immature and had open triradiate cartilage. The apophysis kept its attachment to the posterior trunk and abdominal muscles and to the sacroiliac joint and was avulsed from the bony hemipelvis. (2) the fixation strength through the soft iliac wing. In 3 patients out of 12, the iliosacral screws pierced the soft iliac crest to lie within the sacroiliac joint. Two patients out of 5 had poor fixation of iliac crescent fragment by iliac wing screws.

Discussion & Conclusion:

As the iliac apophysis is the stable part while the bony hemipelvis is the freely mobile segment, the apophysis can be used as a landmark during open reduction of the displaced bony pelvis and repair of the avulsed iliac apophysis should be always performed to avoid iliac hypoplasia.
Inserting IS screws in paediatrics might need to be done through plates used as big washers to prevent piercing the soft iliac wing. Iliac lateral compression screws are preferably inserted in an antegrade direction in young children.

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LATERAL HAMSTRING TENDON TRANSFER AROUND THE LATERAL GASTROCNEMIUS HEAD AND MEDIAL HAMSTRING LENGTHENING TO CORRECT CROUCH GAIT IN DIAPLEGIC SPASTIC CEREBRAL PALSY

Sherif Naseef Girgis Bishay

Introduction:

Hamstring muscles contracture is a major problem in the management of the cerebral palsy CP patient causing the crouch gait which is one of the most resistant conditions to treat

Methods:

Twenty patients (40 knees) with spastic cerebral palsy diaplegia, between 7 – 12 years of age, presented to The National Institute of Neuromotor System of Egypt, from January 2010 to January 2011. All of the patients were diplegic and community ambulators but having knee flexion deformity and walking with crouch gait. All received previous conservative treatment for cerebral palsy in the form of muscle relaxants and physiotherapy, but no previous surgery. Ten were males and ten were females. All were evaluated clinically for the presence of spasticity and/or contracture, knee flexion deformity, popliteal angle, hip extension strength, and type of gait. All underwent lateral hamstring transfer around the proximal head of origin of gastrocnemius, as well as medial hamstring lengthening by Z-plasty and fractionally. Both knees of each patient were operated upon in the same sitting.

Results:

Clinical evaluation using a grading system revealed that 12 patients (60%) were classified as excellent, 6 patients (30%) as good, and 2 patients (10%) as

fair. No poor cases were recorded. There was no complication. There was significant improvement in the result (p> 0.05).

Discussion & Conclusion:

Transfer of the biceps tendon to just above the knee around the lateral head of origin of gastrocnemius, combined with appropriate Z-plasty lengthening of gracilis and semitendinosus tendons and fractional lengthening of semimembranosus being retained in position, is effective in relieving crouch gait in cerebral palsy with spastic diplegia.

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BILATERAL TRUE CONGENITAL DISLOCATION OF THE SHOULDER IN A NEONATE – A CASE REPORT WITH TWO SUCCESSFUL TREATMENT MODALITIES

Nariman Abol Oyoun

Introduction:

Genuine/True congenital shoulder dislocation is an extremely rarely encountered anomaly in Orthopaedic practice. Reports in the literature are limited, some confused with dislocations/physeal injuries due to birth injury, or brachial plexus injury with later presentation. This is a report on a neonate, delivered through Cesarean section with bilateral true/genuine dislocation of the shoulder. Only two reports exist in the literature of true congenital dislocation of the shoulder after Cesarean section, and neither reported bilateral dislocation

Methods:

Case description:

A male neonate, 20 days old, presented to our clinic with bilateral abnormal upper extremity posture of abduction and external rotation. The delivery proceeded though Cesarean section. Examination revealed a reducible anteriorly dislocated left shoulder and a fixed abducted externally rotated right shoulder. Other skeletal abnormalities seen on examination were pectus excavatum and tight left adductor longus muscle with no hip dysplasia on ultrasound. X-rays were very suggestive of bilaterally dislocated shoulders. Closed reduction and Oserian taping was done for the left shoulder immediately at the clinic. MRI of both joints confirmed the reduction of the left Shoulder and the persistent dislocation of the right one. Open reduction of the right shoulder and shortening of the anterior capsule was performed together with left adductor longus tenotomy after chest CT and arterial blood gases were performed in preparation for general anesthesia. Ten-month-follow-up showed bilateral normally positioned shoulders with a full stable range of motion.

Discussion & Conclusion:

A rare case of bilateral true congenital dislocation of the shoulder was treated successfully by closed and open reduction of the left and right sides, respectively.

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A UNIQUE CASE OF MELORHEOSTOSIS PRESENTING WITH TWO RADIOLOGICALLY DISTINCT LESIONS IN THE SHOULDER

Ahmed Abdelwahab Elsheikh

Introduction:

Melorheostosis is a rare, non-hereditary, benign, mesenchymal condition of unknown aetiology affecting the bones and surrounding tissues16. The incidence is not truly known but has been estimated to be 0.9 per 1,000,00024. The etymology of melorheostosis derives from the Greek terminology - melos (limb), rhein (flow) and osteos (bone)7. It is characterised by cortical bone thickening resulting in irregular hyperostosis that appears to flow down the length of the bone18. Radiologically, the appearances are often compared with dripping candle wax and for this reason the condition is sometimes referred to as candle disease of the bone26. We present a unique case of melorheostosis presenting with two radiologically distinct lesions in the shoulder joint.

Methods:

A 51 year old male presented to our clinic with a painful swelling in his left shoulder. The pain started gradually 10 months before presentation and was progressive in nature. There was no history of trauma. The swelling had been gradually increasing in size over a period of three weeks after which growth became static. The pain was provoked by activities requiring shoulder elevation and abduction. Shoulder rotation did not provoke pain. The patient has no clinically relevant past medical or family history.

On examination, a swelling was identified in the antero-supeior aspect of the left shoulder with redness of the skin overlying it. The swelling was firm, localized and mildly tender. The patient demonstrated almost full range of motion with mild pain in abduction and internal rotation (Impingement and Hawkins test were positive) with negative tests for Biceps tendonitis, rotator cuff tear, AC joint arthritic and instability.

Radiographs demonstrated calcification around the greater tuberosity and subacromial space as well as hyperostotic lesions in the scapula blade. A CT scan revealed extensive yet well-defined ossification within the proximal deltoid muscle and hyperostotic masses dribbling from the scapular blade. An MRI scan showed a large volume of low-signal intensity calcific foci within and

beneath the deltoid muscle with no intraarticular involvement or extension to the proximal humerus itself. There were also multiple areas of cortical thickening of the scapula. Otherwise, all structures are normal.Tc99m MDP bone scan revealed increased uptake in the lesions in the left shoulder indicating high grade osteoblastic activity. No other site of abnormal tracer activity was identified. These findings are consistent with isolated Melorheostosis localised to the shoulder region.

Results:

Melorheostosis was described for the first time in 1922 by Leri and Joanny15. It is characterized by hyperostotic linear bone densities and soft tissue contractures and ossification10. So far 313 and 223 cases have been reported in the International and Chinese literature respectively26. The reported age range of presentation for Melorheostosis is between 1 and 63 years of age1, which is consistent with our patient's age. Our patient presented with a monomelic distribution in his left shoulder. There are conflicting reports about the prevalence of monomelic versus polyostotic distributions of Melorheostosis 1, 26. However, it is clear that lower limb is more common than upper limb, rib and spinal involvement 1, 26 and that the hands10 are more frequently affected than the shoulder in upper limb cases1, 6, 7, 12, 13, 20, 22, 26.

Several theories to explain the pathogenesis of Melorheostosis have been proposed. In 1979, Murray and McCredie17 suggested that an early embyronic abnormality of a spinal sensory nerve affecting a single sclerotome resulted in bony overgrowth. This theory is consistent with our patient who has a left scapular blade lesion confined to the C6 sclerotome as well as with many other cases reported in the literature. It has been suggested that the skin and soft tissue involvement seen in many cases may result from trauma to the corresponding dermatome or myotome17. In 1995, Fyns hypothesized that mosaicism was responsible for the development of Melorheostosis involving a post-zygotic mutation of the mesenchyme resulting in concomitant bony, cutaneous, vascular and soft tissue involvement. Surprisingly, the soft tissue ossification with the redness in the skin and the bony lesion of the scapula in the shoulder of the presented case can be easily explained by this theory 8. Some studies have attempted to investigate the genetic origin and inheritance pattern of Melorheostosis21.The LEMD3 gene which encodes for the inner nuclear membrane protein is responsible for controlling bone growth and mutations of this gene can lead to proliferation of hyperostotic lesions. Germline LEMD3 mutations were found in patients who had Melorheostosis associated with Busckcke-Ollendroff syndrome (BOS) or Osteopoikilosis 14, 27. However, LEMD3 mutations have never been identified from lesional tissue from isolated cases of Melorheostosis27.

Our patient presented with shoulder pain, which is the most common presenting complaint documented in the literature1, 26. However, many

patients are diagnosed based on incidental radiologcial findings16, 22. Other reported signs and symptoms include stiffness and reduced range of movement of the affected joint12, 20, 23, soft tissue contractures or masses7, 13, 25, various skin manifestations7, and bone shortening and deformity1, 6, 9, 10, 20. Carpal tunnel syndrome is a rare presentation of melorheostosis 5. Melorheostosis in adults has four distinct radiological appearances in the X-ray: the classic dropping wax appearance, osteoma like lesion, myositis ossificans (MO) like lesion, osteopathia striata like lesion, and mixed picture 7. Children with melorheostosis have different radiological pictures 1. To our knowledge, our case has a unique combination of a classic lesion in the scapular blade and a myositis ossificans like lesion in the deltoid muscle. The classic hyperostotic lesion is present in most cases involving the shoulder 6, 12, 13, 16, 20, 22. However, there are no published cases reporting on the combination seen in our patient 1, 26. It is essential to differentiate between MO and MO-like melorheostosis lesions. Trauma usually precedes MO and nodular calcification is seen in radiological studies for melorheostosis rather than the original lamellar pattern 7, 21. Furthermore, a bone scan of a patient with melorheostosis will demonstrate a significantly higher trace r uptake than that would be seen in a patient with MO4.

Computed tomography (CT) and magnetic resonance imaging (MRI) scans have a supporting role in diagnosing Melorheostosis, CT commonly shows high attenuation cortical thickening occluding the medulla and clear linear demarcation is seen between the lesion and the healthy bone. Soft tissue lesions are easily identified on CT. A degree of mineralization is clearly seen and often the soft tissue lesions are not in continuity with the bone 13, 21. The CT scan of our patient demonstrated this classic presentation.

MRI of bony lesions in melorheostosis shows low signal intensity on all pulse sequences encroaching on the medullary canal which is typical for the scapular lesion of the case presented. Soft tissue lesions produce heterogeneous MRI patterns according to the degree of mineralization. Low signal intensity is detected in mineralized lesions as is shown in our case. Intermediate to high signal is predominantly in the non-mineralized lesions 13, 21, 25.

Since 1976, Tc-99m bone scintigraphy has been developed as a tool to confirm the diagnosis of Melorheostosis and unveil other silent lesions 2, 11. Melorheostosis causes increased tracer uptake, which bridges over the joints due to hypervascularity, which has been confirmed from angiographic studies 4, 21. The reduced tracer uptake observed in patients treated with bisphosphonates supports the theory that increased osteoblastic activity and turnover are key processes occurring in Melorheostosis 6, 19.

The common differential diagnosis of Melorheostosis includes myositis ossificans, synovial osteochondromatosis, osteoma, parosteal osteosarcoma,

focal scleroderma and Caffey's disease. Combined clinical examination and full radiological workup can accurately differentiate diagnoses 10, 23.

There is no standard treatment for Melorheostosis and management plans must be made on an individual patient basis 1. The aims of treatment are pain relief and maintaining function. There are a few reports describing successful analgesia with the use of bisphosphonates 6, 19. Surgical procedures may be offered to patients experiencing mechanical symptoms such as nerve compression, contractures, impingement and deformity 3, 5, 9, 10, 20.
We have followed our patient over six months, radiologically, the findings are stationary. Clinically, pain has settled down and he has nearly no mechanical symptoms. Thus no rational for any kind of intervention in the meantime.

Discussion & Conclusion:

Our patient has a unique presentation of melorheostosis presenting with two distinct lesions occurring simultaneously in the shoulder joint. Our case supports existing theories regarding the etiology of the disease and contributes to the literature on the spectrum of possible presentations of melorheostosis

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FIRST AID OF SPINAL TRAUMA PATIENTS

Desmod Kwok

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RADIOLOGICAL EXAMINATION OF SPINAL TRAUMA PATIENTS

Abdel Mohsen Arafa

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CLASSIFICATION OF TRAUMATIC CERVICAL SPINE INJURIES

Thanos Spiliotopoulos

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TRANSTIBIAL NEAR ANATOMIC VS ACCESSORY ANTEROMEDIAL PORTAL FOR ANATOMIC SINGLE BUNDLE ACL RECONSTRUCTION, A COMPARATIVE STUDY

Ehab Hussien Elgiar

Introduction:

Our study compares two techniques of single-bundle ACL Reconstruction namely; accessory anteromedial portal “AAMT” and modified transtibial technique “MTTT”

Methods:

60 active adult patients with ACL tear grouped into two equal groups were treated surgically. One group treated using AAMT and the other group through MTTT. Both groups had same postoperative course and follow up for one year from surgery. The follow up included lysholm & IKDC subjective knee evaluation forms, IKDC objective knee examination form, and radiological evaluation and results were compared.

Results:

Both groups had no significant difference in subjective results nor clinical examination. Regarding radiological angles, the AMT had a more oblique graft orientation in the coronal plan than that of the MTTT but both were found to be more oblique than native ACL. Also, Our MTTT succeeded to put the graft and tunnel in more obliquity than the traditional non anatomic TTT and even more than anatomic ranges despite of having the graft inclination of the AAMT higher than our MTTT. Patients complaints and subjective scoring were found to be positively related to the graft stability. Patients with better pre-operative subjective state would have smoother postoperative period and better final outcome

Discussion & Conclusion:

our study offers simple modifications to the transtibial technique to allow near anatomic ACL reconstruction with similar results comparable to the AAMT & with less complications. Keywords: Anterior Cruciate Ligament - MTTT - AAMT – Arthroscopy –Orthopaedics

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FAILED ACL RECONSTRUCTION, CAUSES, DIAGNOSIS AND TREATMENT

Mohamed Abulsoud

Introduction:

An increasing number of revision ACL reconstructions are being performed each year. Revision ACL surgery is challenging and cannot be approached in the same manner as primary ACL surgery.

Successful revision ACL surgery requires a detailed history, a comprehensive physical examination, appropriate radiologic studies, and careful preoperative planning.

In order to avoid repeating errors that led to failure of the primary reconstruction, the etiology of the primary failure must be clearly understood before proceeding with the revision procedure.

Graft failure may be due technical errors, another trauma to the previously stable reconstructed ACL, biological incorporation of the graft or infection, sometime the cause of failure is unknown and some cases the failure is multi-factorial.

Methods:

The purpose of the study was to assess the short term results after revision ACL reconstruction using hamstring tendon autograft.
The study included 20 patients, 11 patients were due to technical error (55%), 8 patients were due to traumatic event (40%) and 1 patient due to infection (5%).
Preoperative evaluation were based on history taking, clinical and radiographic evaluation according to Lysholm and IKDC score The Operative technique was the same for all patients. The graft was ipsilateral or contralateral hamstring tendons autografts for all patients.

Results:

The result of the study is significant improvement of the outcome of the patients The mean total Lysholm score improved from mean 35.65 pre-operatively to mean 83.35 post-operatively.
The IKDC score improved significantly from C=7(35%) and D=13(65%) pre-operatively to A=7(35%) B=10 (50%) and C=3 (15%) post operatively The presence of concomitant chondral injury with or without meniscal lesion gave fewer outcomes.
No change of the outcome of the patients with different methods of fixation post-operative though patients with endobutton and metallic screws in the primary surgery gave poor outcome while biodegradable screws and pins gave good result when the patient undergoes revision

Discussion & Conclusion:

Revision ACL reconstruction surgery results in significant improvement in the patient's evaluation post operatively than pre-operative evaluation but still less than primary ACL reconstruction, The state of articular cartilage and menisci significantly affects the patient outcome , Osteoarthritis , loss of some degrees of motion and infection are reported complications and should be considered carefully Patients should be counseled regarding expectations and outcomes after surgery.

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MINIMALLY INVASIVE OPEN REDUCTION AND FIXATION OF AVULSED TIBIAL INSERTION OF POSTERIOR CRUCIATE LIGAMENT

Abdel Samie Halawa

Introduction:

Surgical treatment of bony avulsions of the pos- terior cruciate ligament

(PCL) through a classic posterior approach carries a high risk of neurovascular compromise, and arthroscopic techniques are demanding. The purpose of this study is to report results of safe, minimal invasive surgical approach using pull-out suture fixation technique

Methods:
This is a prospective study of 16 cases with avulsion of the posterior tibial spine, managed through minimally invasive posterior approach and fixed by pull out suture. All patients were males, of mean age 34.5±5.5 years. Average follow-up period was 18±4 months.

Results:
The average operative time was 32±3.75 min. X-rays showed satisfactory reduction and good bone healing in all cases at 3 months. Functional results were excellent in 13 patients, and near normal International Knee Documentation Committee (IKDC) score in the remaining 3 patients. Average Lysholm score was 95.2±2.3, with no complications related to approach or fixation technique.

Discussion & Conclusion:
The presented minimally invasive posterior knee approach is easy and safe with adequate exposure of PCL avulsion fracture. Fixation technique by pull-out sutures is a reliable method of fixation of this kind of fractures that avoids the complications of metal hardware and subsequent need for removal

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MINIMALLY INVASIVE ANATOMICAL DOUBLE BUNDLE MEDIAL PATELLOFEMORAL LIGAMENT RECONSTRUCTION IN RECURRENT PATELLAR DISLOCATION

Mohamed Salah Singer

Introduction:
Recurrent lateral instability of the patella after traumatic patellar dislocation or subluxation usually involves injury to the medial patellar soft tissue restraints. Biomechanical studies have demonstrated that the medial patellofemoral ligament (MPFL) reconstruction restores normal patellar tracking, avoiding increased patellofemoral pressure with consequent patellofemoral arthritis which is the main disadvantage of distal realignment procedures. This makes MPFL reconstruction the procedure of choice in management of recurrent lateral patellar instability with deficient medial restraints in absence of severe trochlear dysplasia and severe malrotations

Methods:

22 knees in 18 patients with recurrent lateral patellar dislocation were operated upon w. Autogenous gracilis graft was fixed to the patella and double bundles were then fixed to the femoral insertion site of the MPFL. The new technique has the advantage of being anatomic with no hardware fixation to the patella avoiding risks of iatrogenic patellar fractures and hardware related complications.

Results:

The Kujala score improved from 62.5 (±17) to 80.4 (±18) ($p<0.001$) at the 1-year follow-up. Pain during activity improved from 3.2 (±2.6) to 1.3 (±2.7) at 1 year ($p<0.001$). No revisions or recurrent dislocations were recorded

Discussion & Conclusion:

22 knees in 18 patients with recurrent lateral patellar dislocation were operated upon w. Autogenous gracilis graft was fixed to the patella and double bundles were then fixed to the femoral insertion site of the MPFL. The new technique has the advantage of being anatomic with no hardware fixation to the patella avoiding risks of iatrogenic patellar fractures and hardware related complications.

Have a Comment?:

Minimally invasive anatomical double bundle medial patellofemoral ligament reconstruction in recurrent patellar dislocation using autologous gracilis tendon graft is aassociated with good short term clinical results.

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INCREASED POSTERIOR TIBIAL SLOPE AS A NOVEL RISK FACTOR FOR MULTIPLE FAILURES AFTER ACL RECONSTRUCTION

Abdel Samie Halawa

Introduction:

Recently, the bony geometry of the proximal tibial slope has been recognized as one of the novel risk factors for anterior cruciate ligament (ACL) ruptures. However, the association of an increased proximal posterior tibial slope with an increased risk of ACL re-ruptures in a previously reconstructed ACL has not been clearly proven.

Methods:

The study is a retrospective case-control study. A total 16 patients with failed revision ACL-reconstruction twice (group 1) were matched (according to age and time of operation) to 3 groups of patients of the same number; group 2

comprising patients with a stable revision ACL reconstruction; group 3: comprising patients with a stable primary ACL-reconstruction and group 4 comprising patients with an intact ACL, but suffering a traumatic patellar dislocation, which were surgically treated with an isolated MPFL reconstruction. In all cases, the medial and lateral posterior tibial slopes were measured as the average of the sum of the anterior and posterior tibial cortex-based slope angles using lateral knee radiographs. The data were analyzed to evaluate if there is a significant increase in the posterior tibial slope in patients with an ACL single or repeated re-rupture following primary ACL reconstruction. For statistical analysis, the non-paired t-test and the one-way ANOV A test were used considering $p<0.05$ significant

Results:

Based on the lateral knee radiographs, the mean + SD of the lateral and medial posterior tibial slopes in the different groups were as follows: group 1: 13.2 + 4.9 and 11.1 + 4.1, group 2: 12.6 + 3.1 and 9.3 + 2.7, group 3: 11.0 + 3.3 and 8.7 + 3.7, group 4: 10.2 + 3.3 and 6.4 + 2.4, respectively.
When group 1 and 2 are combined in one group (patients with repeated ACL reconstruction failure: group A) and group 3 and 4 are combined (stable native or reconstructed ACL: group B) the mean + SD of the lateral and medial posterior tibial slopes became as follows: group A: 12.9 + 4.0 and 10.2 + 3.5, group B: 10.6 + 3.3 and 7.6 + 3.3, respectively. A statistically significant difference exists between the values of the lateral ($P= 0.011$) as well as the medial ($P= 0.002$) slope values between group A and B.

Discussion & Conclusion:

Patients with failed ACL-reconstruction as well as failed ACL-revision demonstrated significantly higher values of the medial and lateral posterior tibial slope ($p<0.05$) compared to those with a stable native or reconstructed ACL in lateral knee radiographs. The findings of an altered osseous geometry of the articulating tibial surfaces suggest a potential role in the pathogenesis of an ACL-reconstruction (re-) rupture. Further studies may focus on analyzing a potential cut-off point where ACL-reconstruction and ACL-revision may require additional surgical tibial slope correction procedures

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US EVALUATION OF HAMSTRING TENDONS AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION BY HAMSTRING TENDON GRAFT

Moawed Farghly El-Adawy

Introduction:

Only minimal hamstring strength losses are recorded by using hamstring tendon graft. Some surgeons no longer recommended harvesting a graft from the patellar tendon in reconstruction for cases of chronic instability as it is impossible to regain pre-injury quadriceps strength. Because of the high donor

site morbidity associated with patellar tendon reconstruction as anterior knee pain and possible fracture patella, many surgeons shifted in their practice to use quadruple hamstring tendons from the semitendinosus and graclis as a graft source. Hamstring tendons are frequently used as auto graft for single and double-bundle in the anterior cruciate ligament reconstruction Recent imaging and histological studies, have suggested the potential for regeneration of hamstring tendons with a near anatomic position after being harvested. This so called lizard tail phenomenon has led some surgeons to believe that there are few consequences to harvesting the hamstring tendons and that regeneration leads to near normal function to the hamstring tendon unit. Some surgeons have even suggested that the regenerated tissue can be harvested for revision procedures. The purpose of this study was ultrsonic evaluation of the hamstring tendons regeneration after anterior cruciate ligament reconstruction using hamstring tendons as a graft.

Methods:

Twenty adult patients with unilateral anterior cruciate ligament tear underwent anterior cruciate ligament reconstruction using ipsilateral hamstring tendons auto graft. Their ages were 18-45 years. They were examined by knee ultrasound to evaluate the regeneration of hamstring tendons after anterior cruciate ligament reconstruction at the ipsilateral (operated) and comparison to contralateral (control) knee 1, 2, 3, 4, 5 and 6 months postoperatively.

Results:

There was progressive decrease in the frequency of hypoechoic pattern of the hamstring tendons during follow-up by US in 90 % of patient (18 / 20). And there was a progressive increase in the frequency of normal fibriller appearance of the hamstring tendons during 6 months follow-up and 90 % of the patients show good Doppler vascularity of the hamstring tendons at the 6th month. So by these ultrasonographic parameters in our study, we found that the hamstring tendons regenerated in the majority of the patients (90%) after anterior cruciate ligament reconstruction using hamstring tendons as a graft.

Discussion & Conclusion:

It has been suggested, with growing evidence that hamstring tendons may regenerate after harvest. Such a phenomenon may offer an additional advantage for the use of hamstrings in ACL reconstruction.Various theories exist to explain the phenomenon of regeneration of the hamstring tendons after harvest for ACLR. Some authors postulated regeneration to start at the distal end of the semitendinosus and gracilis muscles for reason of increased vascularity. The tendon then regenerates in a distal fashion. Cross et al, and Rispoli et al viewed the anatomic space between medial layer 1 and 2 as the tubular pathway for the regenerating tendons. This is in analogy of repair of nerve lesions along intact epineural tissue. Other authors postulated a second theory to explain hamstring regeneration after harvest for ACLR. In the void space following harvest, a hematoma is formed. Fibroblast precursor cells

migrate from surrounding tissues into this hematoma. They start fibroblast prolife ration and collagen production. Limited mechanical stress leads to organization of collagen fibers and possible maturation into a regenerated hamstring tendon.Conclusion:
This study showed that the hamstring tendons regenerated in the majority of the patients (90%) after harvesting in anterior cruciate ligament reconstruction

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FEASIBILITY AND COMPARISON OF FUNCTIONAL ULTRASONOGRAPHY (USG) IN DIAGNOSING ANTERIOR CRUCIATE LIGAMENT INJURY AS COMPARED TO GOLD STANDARD - MAGNETIC RESONANCE IMAGING (MRI)

Sudeep Kumar

Introduction:

Magnetic Resonance Imaging (MRI) has been gold standard investigation for diagnosing Anterior Cruciate Ligament (ACL) tear. MRI is not widely available and is costly investigation. We seek to explore the role of ultrasonography in such cases as it is cheap and easily available

Methods:

Patients with clinical suspicion of having tear of ACL underwent functional USG evaluation. Patients were made to lie prone with towel rolled under the lower leg so as to make the knee flexed by 20 degrees. The procedure was performed as described in paper by H G Palm et al (2009). The difference in translation of tibia on femur with and without pressure was calculated and compared with normal side. Value of difference more than 1mm was considered significant. All the patients also underwent MRI scan to compare the results.

Results:

We recruited 130 patients. 91 of them had positive ultrasonography (>1mm of difference in translation). ACL tear was detected in 89 of those patients in MRI. 39 patients had negative ultrasonography. Of these 39 patients 22 of them had ACL tear on MRI. Sensitivity 80%, Specificity 89%, Positive Predictive Value 98%, Negative Predictive Value 44%. The p value of translation as .0001 which was significant.

Discussion & Conclusion:

We can, on the basis of our study, safely recommend ultrasonography in suspected cases of ACL tears as first modality if investigation.

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TIPS AND TRICKS IN TROCHANTERIC FRACTURE FIXATION

Mahmoud Abdel Karim
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COMPARATIVE STUDY BETWEEN THE RESULTS OF CONSERVATIVE TREATMENT AND PERCUTANEOUS INTERNAL FIXATION OF ACUTE SCAPHOID FRACTURES

Amr Hatem Ahmed

Introduction:

Traditionally, non-displaced scaphoid fractures have been treated conservatively. The nonunion rate was up to 63.6%.Prolonged immobilisation leads to transient joint stiffness and to a delay in return to sport and work activity.Conversely,early fixation can give great satisfaction provided that good reduction and stable fixation has been achieved

Methods:

From October 2014 to December 2015, 30 patients with acute scaphoid fractures(2 weeks) were studied prospectively.. We had 15 patients in the conservative group and 15 in the operative group.. The patients were followed at 1.5 months and at 3 months for union(clinical and radiological) , Wrist and Hand function through Wrist motion range,Grip strength and QUICK DASH score.

Results:

In our series time to union, union rate,range of wrist motion ,grip strength and QUICKDASH score were significantly better in the operative group compared to the conservative group with a union rate of 100% after 3 months in the operative group.

Discussion & Conclusion:

Our study suggests that percutaneous fixation results in a higher union rate,faster time to union and better functiona including Wrist motion range,Grip

strenght and QUICKDASH score. Casting isn‹t required. It allows wrist movement immediately after surgery, that is, regaining the range of motion of the hand and wrist relatively early.This progress has meant a lot to the patients despite the fact that the final functional outcomes may be similar between the cast and fixation treatment groups.

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BLACKISH DISCOLORATION OF THE ARTICULAR CARTILAGE: A CASE REPORT AND DIFFERENTIAL DIAGNOSIS

Osama Gamal

Introduction:

Blackish discoloration of the articular cartilage is a rare finding. The differential diagnosis is limited to some few pathologies as Ochronosis, hemosiderin deposition and some other rare conditions

Methods:

We prospectively randomized 50 patients with unstable pertrochanteric fractures in a surgeon-allocated study to either technique. Each group included 25 patients. All the operative, post-operative, and follow up variables were evaluated. Finally, functional evaluation as per the Harris Hip Score, and economic assessment were done. Female patient, 59 years old, with a long history of bilateral knee pain which was candidate for total knee replacement. During the procedure, dark pigmentation of the articular cartilage and neighboring soft tissues was found. There were no differences between this case and other cases with primary knee osteoarthritis neither in the operative technique nor in the postoperative rehabilitation program.

Discussion&Conclusion:

Degenerative arthritis associated with blackish pigmentation of the articular cartilage is specific to Ochronosis. Treatment is symptomatic; however joint replacement is indicated in cases of advanced degenerative changes. Postoperative result was favorable indicating that total knee replacement is a successful treatment for Ochronotic arthropathy.

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AUTOGENOUS VEIN WRAPPING VERSUS INSITU DECOMPRESSION FOR MANAGEMENT OF SECONDARY CUBITAL TUNNEL SYNDROME AFTER SURGICAL FIXATION OF ELBOW FRACTURES: SHORT TERM FUNCTIONAL AND NEUROPHYSIOLOGICAL OUTCOME

Ahmed Fathy Sadek

Introduction:

The aim of this study was to compare the functional and neurophysiological outcome of insitu decompression versus insitu decompression augmented with autogenous vein wrapping in management of secondary cubital tunnel syndrome at the elbow following fixation of elbow fractures

Methods:

A prospective comparative randomized study was performed on 29 patients who were divided into two groups; group I (insitu decompression) and group II (insitu decompression augmented with autogenous vein wrapping). We measured the patients' demographics, subjective reports of symptoms, and objective evaluation of the functional and neurophysiological outcomes of both groups.

Results:

Group II patients achieved statistically better results in both neurophysiological scoring and clinical sensory rating but not in all other parameters.

Discussion & Conclusion:

Autogenous vein wrapping for secondary cubital tunnel syndrome after elbow fracture fixation only provides a better sensory outcome.

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RESTORING ELBOW FLEXION BY INTERCOSTAL NERVE TRANSFER VERSUS OBERLINE PROCEDURE

Mohamed Romeih

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SUCCESSFUL PROTOCOL FOR TREATING LONG STANDING ASEPTIC NON-UNION OF THE HUMERUS WITH DEFORMITY AND BONE LOSS

Mohamed Ali

Introduction:

Long standing nonunion of the humerus usually is associated with deformity, disuse bone atrophy, metal failure, and major disability and job loss especially in developing countries. Objectives: To evaluate a simple well planned management protocol for these challenging cases.

Methods:

Twenty patients aged between 26-52 (37.8) years old complaining of major disability following long-standing humerus aseptic nonunion. Our protocol included: 1- detailed analysis of the x-rays to find out the possible causes of failure and excluding infection. 2- Thorough clinical evaluation. 3- Clinical and

laboratory exclusion of infection. 4- Detailed Pre-operative planning. 5- Removal of the old implants, aggressive debridement, and freshening the bone ends. 6- Filling the gaps with fibular and iliac cancellous bone grafts. 7- Stable fixation by 2 plates in 2 perpendicular planes. 8- Mobilization of the elbow and shoulder joints before soft tissue closure. 9- A well-planned post-operative physiotherapy program from the 2nd postoperative day.

Results:

The results were encouraging. The follow up period ranged between 18-36 months. All the fractures united in a mean period of 4.7 months period. No infection or secondary operations to achieve union. The range of motion improved greatly with full range of the shoulder joint and elbow range between 5-125 degrees.

Discussion & Conclusion:

This protocol was effective solution for this challenging problem especially in developing countries. Detailed analysis of the causes of failure, detailed planning, offering the best biological and mechanical environment for achieving union and early ROM were effective in regaining limb function.

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RESULTS OF VARIOUS STABILIZATION TECHNIQUES FOR SCAPHOID INSTABILITY IN ADVANCED KIENBOCK DISEASE

Muhammad Quolquela

Introduction:

In advanced Kienbock's disease prior to arthritis development, excessive scaphoid palmar flexion due to lunate collapse and capitate proximal migration is the main cause of pain and wrist limited movements. Treatment aims at correction of scaphoid position and its stabilization

Methods:

Fifteen patients with Kienbock's disease stage IIIB were divided into two groups (1st group was 7 patients treated with tenodesis using extensor carpi radialis longus tendon i.e. ECRL and 2nd group of eight patients treated with scapho-tarpezio-trapezoid arthrodesis i.e. STT fusion). Average age for the 1st & 2nd groups were 26 and 22 years old respectively. Average total wrist movement arc was 55º for the 1st group and 50º for the 2nd group. Grip strength had a mean of 45 % of normal side for the 1st group with 50 % of normal side the 2nd group. In 1st group; half ECRL tendon based distally was passed through in distal scaphoid from dorsal to volar wounds and back forth to maintain the corrected scaphoid position stabilized with K wires. In the 2nd group, STT joint was decorticated , packed with bone graft and stabilized with K wires.

Results:

Average follow up period was 6 years. Average post-operative total wrist movement was 80º for the 1st group compared to 70º for the 2nd group. Grip strength had an average of 65 % of contralateral side for the 1st group compared to 75 % for the 2nd group. Two non union of the fusion sites were reported in the 2nd group. In the 1st group, Mayo wrist score improved from a mean of 38 preoperatively to 82 postoperatively. In the 2nd group, the score improved from a mean of 36 to 70. Mild radioscaphoid arthritis was noted in three patients of the 2nd group.

Discussion & Conclusion:

Tenodesis of the sacphoid yielded better total wrist movements compared to the arthrodesis group without arthritic changes in the former patients while the arthrodesis patients showed better hand grip strength compared to the tenodesis group.

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EARLY RESULTS OF THE ARTHROSCOPIC DOUBLE BANKART BRIDGE TECHNIQUE FOR RESTORATION OF THE LABRAL FOOT PRINT IN ARTHROSCOPIC ANTERIOR INSTABILITY REPAIR OF THE SHOULDER

Mohammed Aboalata

Introduction:

Results of the arthroscopic Bankart repair for the anterior shoulder instability showed increasing success rate in the last years. However, the results are generally are still inferior to what has been reported in the literature by most of the open capsulolabral repair procedures. Improvements of the arthroscopic techniques may be required to improve the possible technical week points that may affect the healing at the capsulolabral interface and thus the clinical results. One important factor is the area and contact pressure of the capsulolabral footprint to the glenoid.

Methods:

Patients who underwent a modified arthroscopic procedure (the double Bankart bridge technique (DBB) for repair of anterior shoulder instability were recruited at a minimum of one year after surgery. The technique is performed utilizing two knotted anchors at the 5.30 and 4 o'clock positions of the glenoid and incorporating their sutures into a third knotless anchor at the 3 o'clock position thus producing a uniform compression over the whole foot print from the 5.30 to the 3 o'clock positions. Patients were evaluated with the VAS for pain and instability, ASES, ROWE, Constant scores as well as the Dawson-12-items questionnaire). Patient's data registry was reviewed to asses the factors that may affect the results (number and type of the fixation devices, umber of preoperative dislocations, concomitant lesions, age at the time of dislocation and operation, time interval between the first dislocation and operation).

Results:
20 patients were available for follow-up after at a minimum of two years. The mean follow up duration was 26.7 months. There was a significant improvement of the various clinical scores used (ASES: 95.2, ROWE: 91.9, Constant: 96.6 and Dawson: 13.6) (P= 0.03). No single patient has reported any redislocation. Subjective apprehension was reported by only one patient (5%). No patients had persistent postoperative instability requiring revision. The average VAS for pain was 0.75 and for instability 1.1 with a median external rotation deficit of 8°. No patients were unsatisfied with the results of the procedure. Age of the patients was the only factor significantly associated with higher VAS for subjective postoperative instability.

Discussion & Conclusion:
The results of arthroscopic DBB technique showed promising early clinical results which we believe are due to a better healing at the capsulolabral interface to the glenoid resulting from the increased and uniform pressure over the whole foot print.
Further longer-term evaluation including radiological evaluation as well as randomized controlled study with the standard technique are still required for better evaluation of the results.

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SINGLE ANCHOR SUTURE AUGMENTATION OF CORACOCLAVICULAR LIGAMENT REPAIR WITH TEMPORARY K-WIRE FIXATION IN ROCKWOOD TYPE IV AND V ACROMIOCLAVICULAR DISLOCATION

Ahmed Nahla, Ahmed Elmalt

Surgical stabilization of the Rockwood types IV,V AC joint dislocations has been recommended. Anchor suture has the advantges of decreasing the risk of complications. Our objective was to evaluate the effectiveness of the use of one suture anchors to augment the repair of CC ligament with temporary AC fixation with two K-wires.

Patients and methods:
Between June 2012 and February 2015, this prospective study was done by us including sixteen patients with Rockwood type IV and V AC dislocation were treated at our hospital(Zagazig university hospital). There were 14 men and 2 women with mean age at operation 32 years. Right side was affected in 10 cases and the left in the other 6 cases. Sport injury was the cause of dislocation in 4 cases, traffic accidents in 5 and fall on the shoulder in 7 patients.
Operation was done after 4 days after the initial injury (2-9 days). The mean operative time was 58 minutes (40min.-90min.). The operations were undertaken under general anesthesia with the patient in the beach chair

position.

Results:
Excellent results were obtained according to Constant Murley score (92.6). Postoperative radiographs confirmed anatomic reduction in all patients. Residual subluxation occurred in two patients. All patients except one were satisfied with the results in terms of functional performance and cosmetic appearance.

Conclusion:
single anchor with repair of the CC ligament appear to be good procedure for manging type IV and V AC dislocation.

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HYBRID FIXATION OF BONE TUMOR ENDOPROSTHESES

Mohamed Fathy Mostafa

Introduction:
The ideal way of modular endoprosthesis fixation to increase its survival rate remains a challenge. A prospective study was conducted to evaluate the outcomes and survival of hybrid fixed endoprosthetic reconstruction after bone tumor resection of lower limb.

Methods:
Thirty two patients (18 males & 14 females) with an average age of 40.1 years (15 – 59 years) were treated by wide resection of malignant or locally aggressive tumors and endoprosthetic reconstruction. Site specific hybrid fixation of prosthetic components was performed in all cases with cemented stem was applied to cancellous end and cementless stem to cortical diaphyseal end of the defect. Kaplan-Meier survivorship analysis was performed using revision of stemmed components for any reason as an endpoint for implant. The modified Enneking scoring system was used for final functional evaluation.

Results:
After a mean follow-up of 39.8 months (28 – 84 months), the overall endoprosthetic survival at 60 months was 94% and the mean functional score was 88.5% (83% - 97%). There were no cases of deep infection or implant breakage. Three patients developed periprosthetic fracture. Superficial infection was encountered in two patients. Five patients showed failure of soft attachment, 3 knee extensor mechanism and 2 hip abductors one of them got hip dislocation. Two patients continued alive with pulmonary metastases.

Discussion & Conclusion:
The short term oncological and functional results are encouraging and suggest that hybrid fixation can be a reliable method to improve endoprosthetic

survival

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THE CARPAL TUNNEL SYNDROME AND THE DOUBLE CRUSH SYNDROME HYPOTHESIS: REVISITED

Heba Raafat

Introduction:

The commonest application of the double crush hypothesis is its association to median nerve entrapment at the wrist. The double crush (DC) concept has gained popularity because it provides a rationale for evaluating the cervical spine and roots when treating carpal tunnel syndrome (CTS). The double crush syndrome (DCS) and CTS co-occur more than would be likely of CTS to occur alone. Up to 90% of CTS patients are misdiagnosed as only 10% have the problem at their wrist

Methods:

This study was conducted on 80 patients, 40 patients presenting with brachialgia (Group I) and 40 claiming failed CT release operation (Group II) . Diagnostic work up included neurological examination, MRI of cervical spine, Phalen test and Tinel sign, electromyographic examination (EMG) and motor and sensory nerve conduction studies (NCS).

Results:

EMG and NCS showed 10 cases with CTS (25%), 20 (50%) with double crush syndrome and 10 (25%) with cervical radiculopathy in group I, while group II patients showed 10 cases (25%) with CTS and 30 (75%) with DCS. In all patients, 50 cases (62.5%) showed DCS. When comparing the first NCS of Group II pre and postoperative, 32 cases (80%) showed improvement of the NCS results while 8 (20%) deteriorated.

Discussion & Conclusion:

DC hypothesis was supported while the concept of frequent failure of CT release surgery was not supported for the benefit of DC hypothesis

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GENDER-SPECIFIC VERSUS STANDARD POSTERIOR CRUCIATE SUBSTITUTING TOTAL KNEE PROSTHESIS A PROSPECTIVE RANDOMIZED CLINICAL TRIAL

Hany Saad

Introduction:

The introduction of Gender-Specific (GS) knee arthroplasty implants was suggested to offer more sizing options and is based on the anatomic gender differences.

Methods:

Material and methods: In the period between February 2011 and March 2013 a prospective randomized clinical trial was conducted on 64 female patients with 80 knees with a mean age of 62 years who had primary TKA for advanced knee osteoarthritis. Knees were divided into two groups , The first included 40 knees who had TKA using GS knee prosthesis (Zimmer Gender Solutions). The second group included 40 knees that received standard Posterior Stabilized (PS) knee design (Zimmer LPS Implant). Radiological and functional evaluation in form of The Oxford Knee Score (OKS), Knee Society Score (KSS) and Knee Society Score for function (KSS-F) were performed pre-operative then at 3, 12 months and annually thereafter.

Results:

the mean preoperative range of knee flexion were 110 and 108 degrees in the GS and PS groups. At the latest follow up, the mean postoperative knee flexion were 115 and 113 degrees. The OKS, KSS, KSS-F have all significantly improved in both groups from pre to postoperative ($P < 0.001$), but no difference was observed between the GS and PS groups. Negligible differences in patients' preference between the two prostheses was observed in the 14 patients who had GS prosthesis in one side and PS on the other.

Discussion & Conclusion:

GS knee implants show no extra-benefit than the standard PS prosthesis, both implants achieve excellent clinical outcome at the short term

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EARLY BICRUCIATE LIGAMENT RECONSTRUCTION AFTER KNEE DISLOCATION

Ahmed Mohammed Hany Saleh

Introduction:

The commonest combinations of ligamentous injuries following knee dislocation first Anterior cruciate ligament(ACL),Posterior Cruciate ligament(PCL) and Medial collateral ligament(MCL) ,second ACL,PCL and lateral collateral ligament(LCL).

There is debate in regard to: Timing of reconstruction (early or delayed), Sequence of ligamentous reconstruction or augmentation and finally the Rehabilitation (early mobilization or immoblization)Aim of the work is to audit results of early reconstruction for both cruciate ligaments in addition to re-attachment or reconstruction of associated collateral ligaments following knee dislocation

Methods:

Eleven patients were done nine of them with collateral lig. Injuries and only two were bicruciate injuryThe average age was 27 years (17-35 years).Over a period of 6 years (minimum 1 year follow up) Prospectively evaluated using IKDC score

- Arthroscopic reconstruction of both cruciate ligaments we used autogenous grafts .The Quadriceps tendon (ipsilateral) for the PCL,Hamstring tendons (contralateral) for the ACL and Semitendenosus tendon (ipsilateral) for the collateral lig.reconstruction.

Results:

Associated collateral ligaments injury,Five LCL and 4 MCL Reconstruction of collateral ligaments Five LCL Two MCL while Reattachment of two MCL.Two cases of associated common peroneal n. injury and persist post. op.

Discussion & Conclusion:

early reconstruction of bicruciate ligament injury carries higher functional results in range of motion and stability

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EXTENSOR TENDON SPLITTING VERSUS EXTENSOR TENDON SPARING APPROACH IN EXTRA-ARTICULAR PROXIMAL PHALANGEAL FRACTURES FIXED WITH MINIPLATES AND SCREWS

Mostafa Ahmed Thabet

Introduction:

Unstable phalangeal fractures constitute a challenge for surgeons with many options for operative treatment. Miniplates fixation of these fractures have the advantages of stability and neutralization of bending, rotational and shear forces. Our study compared the functional results of extensor tendon splitting approach versus extensor tendon sparing approach in extra-articular proximal phalangeal fractures fixed with miniplates and screws.

Methods:

in a randomized prospective study we compared two groups of patients; group (A) of extensor tendon splitting approach (24 fractures in 21 patients with average age 31.9 years) versus a group (B) of extensor tendon sparing approach (26 fractures in 19 patients with average age 30.8 years). The final results were assessed with Total Active Range of Motion (TAM), Grade of TAM, Grip strength and DASH Score.

Results:

TAM $\geq 220^0$ was achieved in 79.2% and 84.6% of fractures in group A and B respectively. There was only significant reduction in grip strength in group A as

compared to group B (45.9±8.4 Kg versus 51.7±7.3 Kg) while other parameters showed slightly better results in group B compared to group A but the differences were statistically insignificant as regard time to union (5.3+1 versus 5.6+1.1 weeks), TAM (226.8+18.4^0 versus 233.2+17.5^0), grading of TAM (excellent score 75% versus 80.8%) and DASH score (12±9.2 versus 11.5±8.3).

Discussion & Conclusion:

Meticulous surgical dissection, anatomical closure of layers and early active mobilisation are the keys to success in fixation of phalangeal fractures regardless the approach chosen.

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THE COCCYX: FACTS

Abdel Mohsen Arafa

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SURGICAL APPROACHES TO THORACOLUMBAR SPINE

Mohamed Fawzy

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APPROACHES TO THE CERVICAL SPINE

Ahmed El Badrawy

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GRADUAL FIBULAR TRANSFER BY ILLIZAROV EXTERNAL FIXATOR IN TRAUMATIC AND INFECTED LARGE BONE DEFECTS

Mohammed Anter Meselhy

Introduction:

Background: Controversy still existing about the relative merits of the fixation device for the challenging unstable pertrochanteric fractures, its suitability for the eastern patient groups. The aim of the present study was to compare the outcomes of MIPPO using a newly designed anatomical proximal femoral plate, (Minia-plate), and proximal femoral nail antirotation (PFNA) in the treatment of these fractures. The reconstruction of large bone defects in the infec- tious environment is still a big challenge for limb sal- vage because of disturbance in bacterial flora, bacte- rial resistance and limitation of blood supply at scarred tissue.

Several reconstructive procedures have been attempted, but a biological option was to use auto- genous bone. Donor autogenous bones that were used for vascularized bone graft include the fibula, ilium, scapula, and rib. But the vascularized fibular graft is a well-recognized donor of vascularized

bone

Methods:
14 cases , 10 males, 71.4% and 4 females,28.6% were presented in this case series , there were 11 RIGHT SIDED TIBIA AND 3 LEFT SIDED TIBIA, the aetiology in segmental tibial loss was high energy trauma in 8 patients gustaloIIIC while chronic osteomyelitis after internal or external fixation was presented in 6 patients.
The mean segmental bone defect of the tibia was 13.3 cm,SD,2.7,range between 10 to 18.6cm. Patients in these patients there were sever sof tissue compromised as presence of docking sites and scares that make tibial bone transport is difficult and risky as the tibia will get out the skin during tibial bone transport.

Results:
The mean time needed for the 1st stage was 11.6 weeks, SD,1.45, range (9-14) weeks, while the mean time of the 2nd stage was 3.5 weeks, SD.65, range (3-5)weeks, where the mean time of the 3rd stage was 13.3 weeks, SD,2.7, range (10-18.6) weeks.
Pin tract infection was presented in 42.9%,while there was failure to achieve the fibular transport in 1 patient, refracture was presented in two patients14.3%.
The mean limb length discrepancy was 2.7 cm, SD,0.28, range (2.3-3.1)cm. while valgus mal-alignment at the ankle joint was presented with mean 16.7 degrees, SD, 7.6, range (10-25) degrees.

Discussion & Conclusion:
Gradual fibular transport by illizarov external fixator in patients with long segmental tibial loss and sever soft tissue compromise is a good method to save the limb and allow early mobilization

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FRACTURE MIDSHAFT OF THE CLAVICLE -PLATE VERSUS NAIL ?

Khalaf Moussa

Introduction:
The clavicle fracture is one of the most frequent bony injuries. The mid third of the clavicle is involved in 70-80 % and is known for its favorable prognosis in respect to consolidation and functional outcome. However, 10-30% of conservatively treated patients have an unsatisfactory clinical, radiological and subjective results on account of shortening, nonunion or poor shoulder function.

Discussion & Conclusion:
The standard technique for surgical treatment of midclavicular fractures is open reduction and internal fixation with plate. Recently intramedullary

nailing has gained acceptance as a method of fixation.
The problem of plate fixation is the fact of the that the tension side of the clavicle and consequently the optimal position the plate change depending on the direction of loading and rotation of the arm. Whatever the plate position, a moment of bending exerted on the implant cannot be prevented. Therefore to avoid breakage of the of the plate , a rather large implant in relation to the size of the bone must be chosen. Typical problems of the plate fixation include > an ugly hypertrophic keloid, implant loosening, nonunion, and re-fracture after implant removal.
From the biomechanical standpoint of view the position of intramedullary nailing is ideal as it addresses the problem of changing the sides of tension under varying loading of the clavicle. One of the most threatened complication is the intrathoracic displacement specially in cases of osteoporosis.
The use of either the plating or nailing should be considered in comparison with conservative treatment .

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TWO STAGE RECONSTRUCTION VERSUS BONE TRANSPORT IN MANAGEMENT OF RESISTANT INFECTED TIBIAL DIAPHYSEAL NONUNION WITH A GAP

Ahmed Fathy Sadek

Introduction:

infected nonunion of the tibial diaphysis poses one of the most challenging scenarios. There is no clear cut guidelines for cases of infected diaphyseal nonunion with bony defects of ≤ 6 cm

Methods:

A retrospective comparative study was conducted on 30 patients who sustained resistant infected tibial diaphyseal nonunion with bony defect of ≤ 6cm. The 30 patients were the sum of two groups; group I [16 patients, mean age: 33.6 years] which included all patients who underwent two stage reconstructions and Group II patients [14 patients, mean age: 29.5 years] who were managed by application of Ilizarov ring external fixator in a single stage surgery. Union was judged both clinically and radiologically. A scoring system comprising dual functional and bony grading was employed to evaluate the final results of both groups.

Results:

the results of both groups regarding the time to union, the size of the resultant bony defect and the postoperative limb length discrepancy showed no statistically significant differences. Group II patients needed postoperative plastic reconstruction procedures significantly more than group I patients (p= 0.019). Similarly, group II patients exhibited more complications than group I patients (p= 0.003). regarding both clinical and bony grading, the results of group I showed superiority to group II results with the only significant

difference being the preservation of the preoperative range of motion of both ankle and subtalar joints (p= 0.072).

Discussion & Conclusion:
The use of two stage reconstruction in cases of resistant infected diaphyseal tibial nonunion gives comparable results to the Ilizarov ring external fixator in cases associated with bony defects within the confines of 6 cm with superiority in preservation of ankle and subtalar joints range of motion.

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KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) STUDY OF RESIDENTS ABOUT OSTEOPOROSIS IN ASSIUT UNIVERSITY HOSPITAL IN EGYPT

Ahmed Youssef Bahnasawy

Introduction:
To evaluate knowledge, attitude and practice of residents about osteoporosis management and prevention in Assiut University Hospital.

Methods:
A cross sectional study, using a self- administered standardized questionnaire survey. It consisted of questions about knowledge, attitude and practice in osteoporosis management. Subjects were residents of departments of orthopedics, internal medicine, physiotherapy & rheumatology and gynecology & obstetric of Assiut University Hospital.

Results:
Forty nine residents of four departments returned the questionnaire and only 24(24.48%) residents answered the practice part. About twenty percent of residents choose their departments as the most department responsible for management of osteoporosis cases and 26.53% believed that it is interdisciplinary. The grades of residents in all departments and in all years of residency in knowledge and practice were fair except orthopaedic residents who were good in knowledge. There was no correlation between knowledge and practice scores in residents who answered the practice part.

Discussion & Conclusion:
The study revealed specific gaps of knowledge and practice but a positive attitude about the magnitude of the problem and acknowledging the need for knowledge.

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MANAGEMENT OF EQUINOVARUS ANKLE BY T.S.F

Mohammed Anter Meselhy

Introduction:

TheIlizarov fixator was first introduced in1951.Sincethat time, it has undergone many advancements and material changes.Most of there constructive foot and ankle surgeons throughout the world are familiar with the concepts and earliest configurations.All of the configurations have been adapted by necessity to solve the problem fixation cases of the day. Through this process, distraction and compression have been at the center of the developmental focus. There has been no greater advancement in bone surgery than the use of both distraction and compression. Untilthelast10years,distraction of the foot,although possible, was difficult to set up with an Ilizarov fixator. The development of the standard Taylor spatial frame (TSF) consisting of 2 proximal rings and a foot plate, made this easier but only for the fore foot and it was limited by the planes of distraction available for the long bones of the arm and the leg .Following the integration of the TSF into standard practice, it became possible to use the fixator to distract the forefoot and the midfoot with the same ease of use demonstrated in the rearfoot and the leg.

Discussion & Conclusion:

T.S.F IS effective and unique method in management of equino varus ankle

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INSOMNIA IN ATHLETES

Khalaf Moussa

Introduction:

Insomnia is a sleep disorder in which there inability to fall asleep or stay asleep as long as desired. Insomnia is typically followed by functional impairment while awake. It can be short- or long- term and it can be grouped into primary and secondary or comorbid. Transient insomnia which lasts for less than a week caused by changes in the sleep environment, by the timing of sleep or stress and severe depression. Emotional stress and travelling through different time zones are among the risk factors. Professional Tennis player who used to be engaged in many tournament over the year are among the athletes who are suspected to insomnia especially before a competing games. Its prevalence among tennis players is not known. Its consequences may have a dramatic effect on the psychomotor and performance of the player. It is important to identify or rule out medical and psychological causes before deciding on the treatment for insomnia

Discussion & Conclusion:

Non-pharmacological strategies provide long lasting improvement and are recommended as a first line and long term strategy of management. EEG biofeedback, sleep hygiene, stimulus control therapy, paradoxical intention and meditation, all have been for the treatment of insomnia. Medications like antihistamines, sedatives ,benzodiazepines, antidepressants are associated tolerance and dependence. It may also have hazards and drawbacks on the performance of the competing athlete. Melatonin is a

hormone synthesised by the pineal gland and secreted through the blood stream commonly at bedtime in order to control the sleep cycle. It is recommended to be taken at night before going to bed. Natural remedies like almond milk is an excellent source of calcium which helps brain make melatonin, plus warm milk may spark pleasant and relaxing memories of breast feeding mother.

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SALVAGE PROCEDURE FOR CHRONIC PATELLAR TENDON RUPTURE: A CASE REPORT.

Eid TA, Kandeel AA

Management of chronic neglected patellar tendon rupture represents a difficult condition for the orthopedic surgeons due to some factors such as quadriceps muscle atrophy, peri-patellar adhesions, patellar tendon atrophy and the superior migration of the patella (patella alta). Such difficulties might be further complicated by intra-operative patellar fracture during patellar ligament reconstruction. In the current article, the authors report a salvage procedure for such devastating intra-operative complication; based on bypassing the patella and gaining the advantage of the quadriceps tendon for function restoration of the knee extensor mechanism.

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