THE SOUTH AFRICAN SOCIETY FOR SURGERY OF THE HAND

41st CONGRESS

27 - 29 AUGUST 2010

THE BOARDWALK CONFERENCE CENTRE

PORT ELIZABETH

CONGRESS PROGRAM

LCP Compact Hand and LCP Distal Radius System 2.4.

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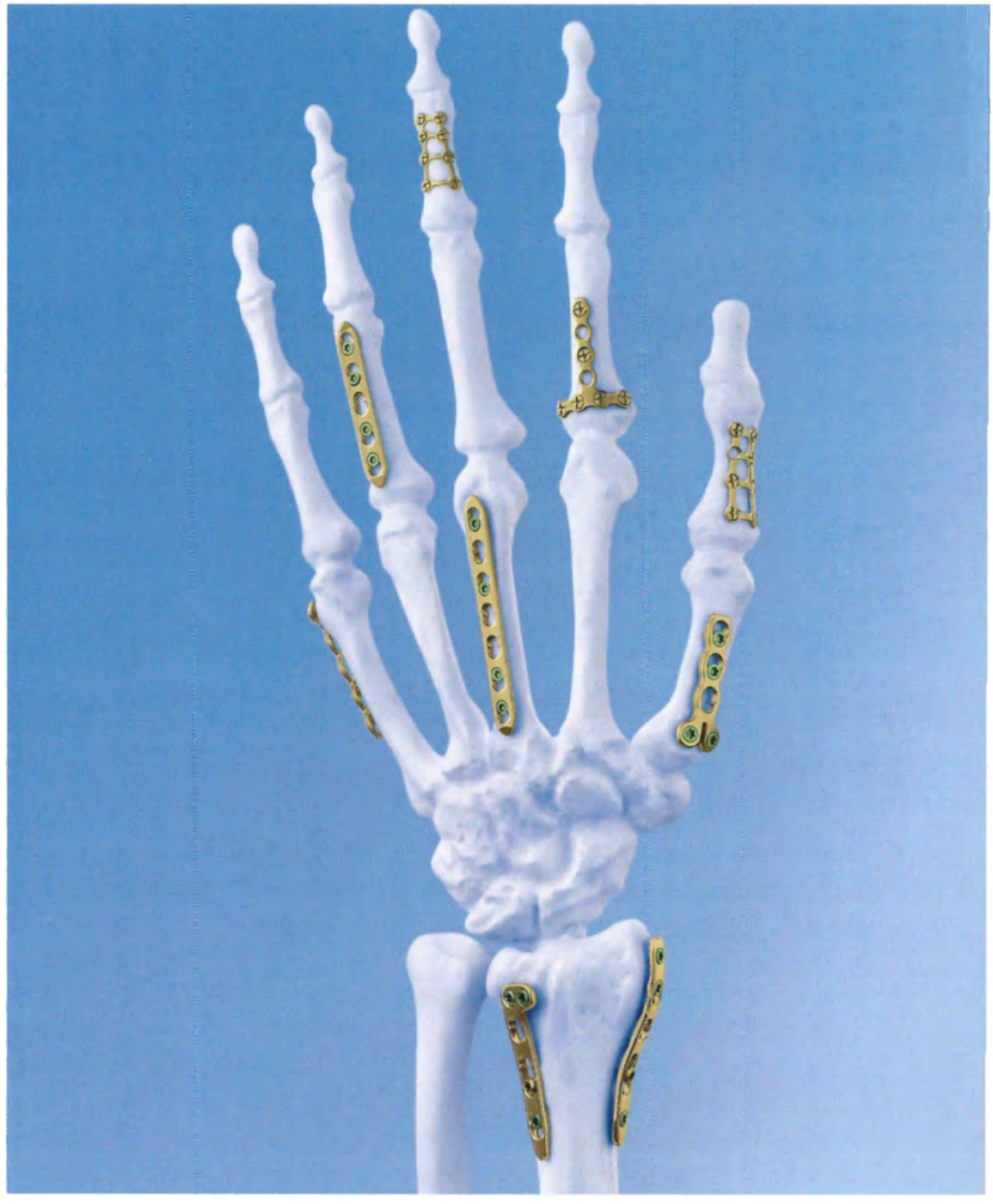

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MESSAGE FROM THE PRESIDENT OF SASSH

DR MICHAEL SOLOMONS

Friends and Colleagues

The Annual Congress of The South African Society for Surgery of the Hand finds us back in Port Elizabeth. Renowned as the Friendly City we look forward to a meeting of stimulating academia and warm camaraderie. I would like to officially welcome our overseas speakers, the supporting trade and most importantly you, the delegates, who give us a forum to discuss the art and science of Hand Surgery.

Our invited speakers are Professors Michael Hausman from New York and Dean Sotereanos from Pittsburgh. Together they bring an unbelievable experience in Elbow, Wrist and Hand Surgery. We look forward to their thoughts and views. I would also like to thank all the presenters of what amounts to a record number of free papers.

The trade exposes us to cutting edge technology and hardware. We thank them for their participation and I urge you to support them as they support us.

Huge thanks to Hendrika van der Merwe for her professional and dedicated efforts in ensuring the success of these meetings.

And finally, I urge all involved to help make this meeting as valuable as possible by encouraging dialogue and discussion:

"If you don't understand - ASK ; If you don't agree - CHALLENGE"

Thank you and have a great meeting.

Michael Solomons
President SASSH
Congress Organiser

INTERNATIONAL VISITORS

PROF MICHAEL HAUSMAN

Michael Hausman holds the position of Chief of Hand and Elbow Surgery at Mount Sinai School of Medicine. As the Robert K Lippmann Professor he sits in the Vice Chair position in the Dept of Orthopaedic Surgery. His extensive experience and substantial academic output has seen him travel all over the world to share his knowledge. We welcome him to South Africa and trust he will enjoy his time here as much as I am sure we will enjoy his talks.

PROF DEAN SOTEREANOS

Dean Sotereanos hails from Pittsburgh where he holds a full Professorship at Drexel University.
He has an extensive Academic resume ranging from numerous peer reviewed publications to many invited book chapters including Greens Operative Hand Surgery. His areas of interest range widely from the elbow to the hand and wrist.
Renowned as an experienced surgeon and an awarded teacher, we look forward to his input.

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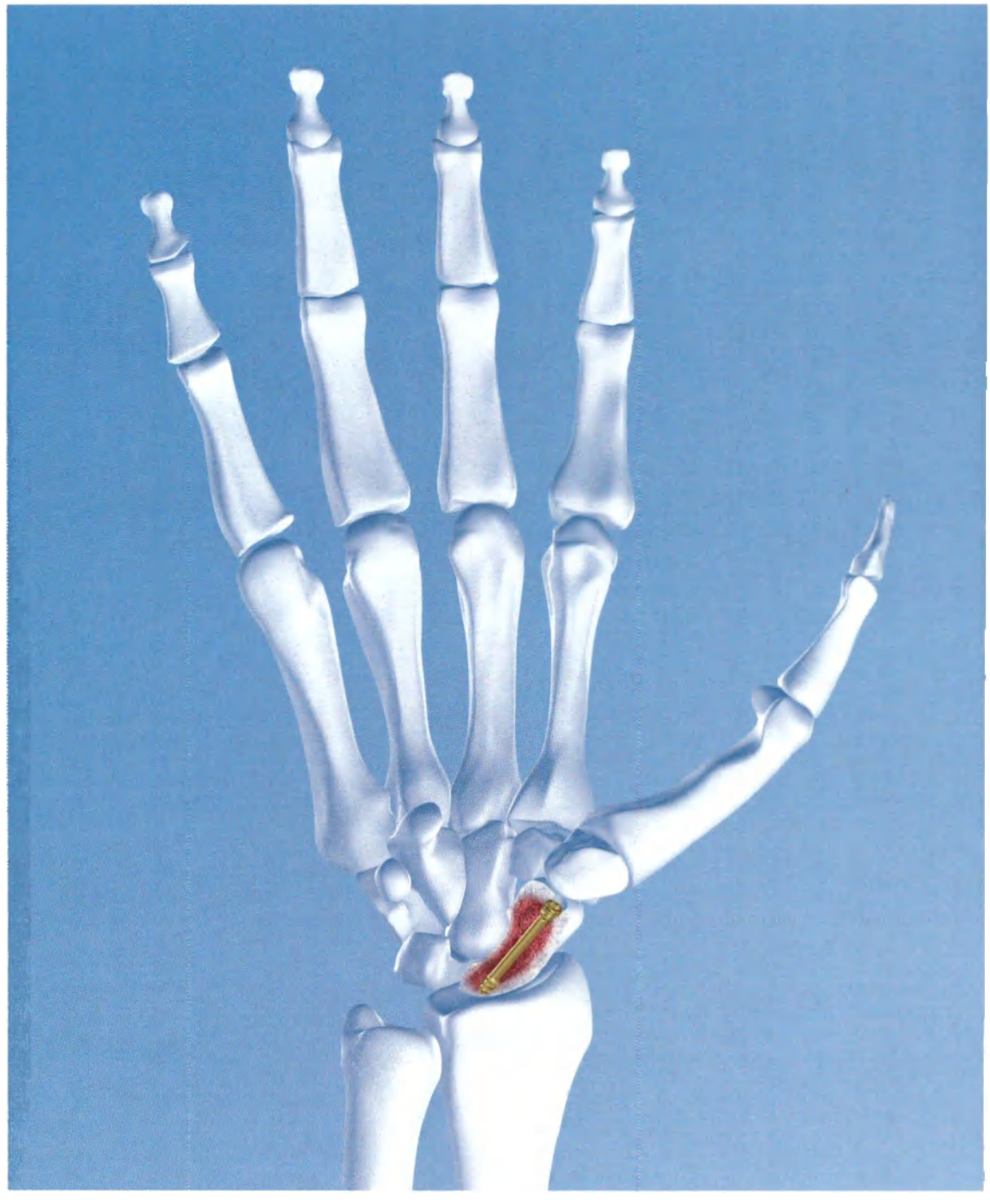

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GENERAL ANNOUNCEMENTS/ CONGRESS INFORMATION

CPD REGISTER

- Discovery Health will handle the CPD formalities on a daily basis.
- Approximately 7-10 days post-congress, you will receive notification on your mobile phone to download your certificate from the website www.mycpd.co.za. You need to have your log-in and password details available to download your certificate

DRESS CODE

- Casual attire for congress sessions and smart casual for the social functions

IMPORTANT

- **Name badge:** It is important to wear your name badge during the congress. Only delegates wearing name badges will be permitted to enter the lecture hall, exhibition area and the social functions
- Please note that the use of **mobile phones** in the lecture hall is not permitted

INFORMATION FOR SPEAKERS

- Keeping to your allocated time is a courtesy to all following speakers. The chairs of the sessions have been instructed to exert tight control and interrupt lengthy presentations. Please make sure you are aware of the time allotted to you for your presentation
- Please hand your presentation to the audiovisual technicians at least 3 hours prior to the session in which the presentation is being given. The technicians will be available in the congress venue to receive your material
- Computer presentations must be in Windows Office XP or later versions and on Power Point

INFORMATION/REGISTRATION DESK

- The Information/Registration Desk will be situated in the Foyer of the Boardwalk Conference Centre for the duration of the congress
- Please feel free to visit the Desk should you require any assistance

LANGUAGE

- The official language of the congress will be English. No simultaneous translation service will be provided

SMOKING

- In accordance with Government Legislation regarding smoking in public areas, kindly note that this venue is a non-smoking area

TRADE EXHIBITORS

- Kindly make every effort to visit all the stands
- Teas and lunches will be served in the trade exhibition area

2010 CONGRESS ORGANIZING COMMITTEE

Congress Chairman	Michael Solomons
Congress Coordinator	Hendrika van der Merwe

SOCIAL EVENTS

WELCOME DRINKS

Friday 27 August 2010
1700 - 18:30
Foyer: Boardwalk Conference Centre
Dress: Casual

CONGRESS DINNER

Saturday 28 August 2010
19:30 for 20:00
Boardwalk Conference Centre
Dress: Smart Casual

FUTURE EVENTS

ANNUAL REFRESHER COURSE

2011	**Topic**	**Infections, Tumors, Rehabilitation**
	Date	25-27 February
	Venue	Ilanga Estate, Bloemfontein

ANNUAL CONGRESSES

2011	**42nd Congress and Instructional Course**	
	Date	2-4 September
	Venue	Sun City
	Invited Speaker	Scott W Wolfe Hospital for Special Surgery, New York
2012	**43rd Congress and Instructional Course**	
	Date	31 August - 2 September
	Venue	Durban

OFFICE BEARERS

President	Michael Solomons
Immediate Past President	Martin Wells
Honorary Secretary/Treasurer	Theo le Roux
Members	Michael Carides
	Roger Nicholson
	Johan van der Westhuizen
Executive Secretary/Congress Coordinator	Hendrika van der Merwe
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	www.sassh.co.za

PAST PRESIDENTS

1969-1971	I Kaplan
1971-1973	AC Boonzaier
1973-1975	M Singer
1975-1977	JH Youngleson
1977-1979	TL Sarkin
1979-1981	CE Bloch
1981-1983	SL Biddulph
1983-1985	WMM Morris
1985-1987	LK Pretorius
1987-1989	KS Naidoo
1989-1991	SL Biddulph
1991-April 1992	BJ van R Zeeman
April 1992 - 1993	SL Biddulph
1993-1995	JH Fleming
1995-1997	U Mennen
1997-1999	EJ Bowen-Jones
1999-2001	LT de Jager
2001-2003	JJ van Wingerden
2003-2005	M Carides
2005-2007	TLB le Roux
2007-2009	MC Wells

AC BOONZAIER MEMORIAL LECTURES

1997 PROF ULRICH MENNEN
"The Appreciation of the Hand"

1998 DR JOHN YOUNGLESON
"Reminiscing the Past"

1999 DR EDWARD BOWEN-JONES
"Bamba Isandla Qualities of a Leader in Hand Surgery"

2000 PROF KS NAIDOO
"Overview of Hand Surgery"

2001 DR LT (WIKUS) DE JAGER
"The Future of Hand Surgery in South Africa"

2002 PROF SYD BIDDULPH
"The Hand - A Mirror of Disease"

2003 DR JAN VAN WINGERDEN
"The Joy of Medical Discovery"

2004 DR INGRAM ANDERSON
"The Hand - Cogitations of a Rheumatologist"

2005 DR MICHAEL CARIDES
"But, on the other hand....."

2006 PROF MICHAEL TONKIN
"On Surgeons. Heads, Hearts and Hands - A Philosophy"

2007 PROF THEO LE ROUX
"Hand-outs from the Mind"

2008 PROF ALAN MORRIS
"So when DID we stop climbing in trees? Current debates on the evolution of the hand"

2009 DR MARTIN WELLS
"Standing on the Shoulders of Giants"

ANNUAL GENERAL MEETING

SATURDAY 28 AUGUST 2010 16:45 - 17:30

Ironwood Boardroom, Boardwalk Conference Centre
(Members only / Slegs Lede)

1
Welcome Address by the President
Verwelkoming deur die President

2
Apologies and Proxies
Verskonings en Volmagte

3
Minutes of the Previous Annual General Meeting
Notule van die Vorige Algemene Jaarvergadering

4
Matters Arising from the Minutes
Sake wat uit die Notule Voortspruit

5
President's Report
President se Verslag

6
Honorary Secretary/Treasurer's Report
Ere-Sekretaris/Tesourier se Verslag

7
Proposed Increase in Entrance Fee and Annual Subscription
Voorgestelde Verhoging in Intreefooi en Jaargeld

8
Announcement of President-Elect
Aankondiging van Aangewese President

9
Membership
Lidmaatskap

10
General
Algemeen

11
Next Annual General Meeting
Volgende Algemene Jaarvergadering

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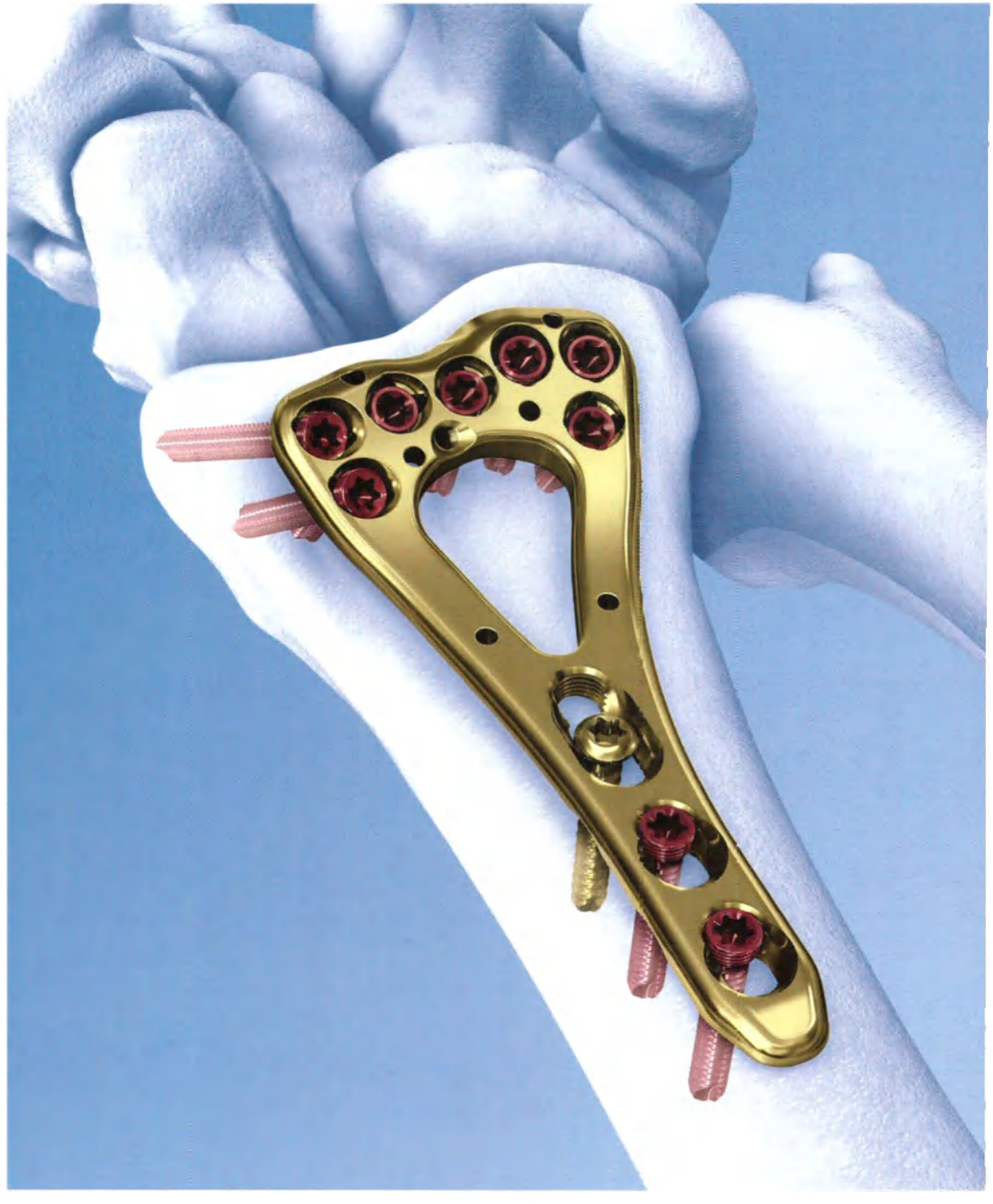

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SCIENTIFIC PROGRAM

FRIDAY 27 AUGUST 2010

1400-1700

Stratmed Pre-meeting Cadaver Workshop:
Surgical Approaches to the Wrist
Venue: Boardwalk Conference Centre

Please notes:
This is an instructional workshop
No didactic lectures
No overhead presentations
Interactive discussion with flipcharts only
We will endeavour to cover as much of the program as possible but this will be dictated by delegates and available time.

Lead:
Michael Hausman
Assistants:
Dean Sotereanos
Michael Solomons
Andrew Barrow

Program

1: Scapholunate Dissociation
- a. Dorsal Approach to the Wrist including
  - i. Dorsal Anatomy
  - ii. Exposing the Ligaments
  - iii. The Berger/Mayo Ligament Sparing Approach
- b. RASL procedure — Michael Hausman
- c. PL graft — Michael Solomons
- d. Brunelli procedure — Andrew Barrow
- e. Dorsal Capsulodesis with Anchors — Dean Sotereanos

2: STT Arthrodesis
Exposure of STT joint
Fusion Technique

3: When not to Volar Plate:
Approach to Radial Styloid Fractures – Radial Pin/Plate
ORIF of Distal Ulnar Fractures, just Proximal to the Head
Approach to Dorsal Ulnar Fragment for Dorsal Wire Form or Dorsal Buttress Plate

4: TFCC Tears
Surgical Anatomy of the Ulnar Side of the Wrist
Open Exposure of TFCC
Fusion or Ligament recon of LT joint

5: Other:
Guyon's Canal explored
Hypothenar Fat Flap
Demo of Vascularised Bone Graft of Scaphoid
Dorsal Retinacular
Capsule Based — Dean Sotereanos
How to do a PRC
How to do a 4-corner Fusion
DIPJ Fusion using X-fuse

Whatever else you want to discuss?

1700-1830 Welcome Drinks
Venue: Foyer of The Boardwalk Conference Centre

SATURDAY 28 AUGUST 2010

0715-0750	Delegate Registration Foyer: Boardwalk Conference Centre	

SESSION ONE

Chair: *Martin Wells & Erich Mennen*

0750-0800	Opening/Welcome Announcements	Michael Solomons
0800-0810	Transthecal Flexor Sheath Block for Finger Surgery in a Resource Limited Setting	Kevin MacIntyre, A Ikram
0810-0815	Discussion	
0815-0825	Ultrasound Guided Auxiliary Blocks	Erich Mennen
0825-0830	Discussion	
0830-0840	Outcomes of Sural Nerve Grafting vs Triple Nerve Transfers in the Management of Upper Brachial Plexus injuries	MN Maree, Alex van der Horst, M Solomons
0840-0845	Discussion	
0845-0855	Macrodystrophia Lipomatosa of the Hand and Upper Limb	Sam Golele
0855-0900	Discussion	
0900-0925	Brachial Plexus/Nerve Transfers (Adults)	Michael Hausman
0925-0930	Discussion	
0930-1000	TEA	

SESSION TWO

Chair: *Syd Biddulph & Jackie Muller*

1000-1025	Ulnar-sided Wrist Pain	Michael Hausman
1025-1030	Discussion	
1030-1040	Snake Bite to the Upper limb – Our Experience at Dr George Mukhari Hospital	Solly Bila; S Golele
1040-1045	Discussion	
1045-1055	Hook of Hamate Fractures: Clinical and Radiological Pointers to Avoid Missing this Injury	Ian Koller, M Solomons, S Carter
1055-1100	Discussion	
1100-1110	Acquired Digital Arterio-venous Malformation: Presentation of an Extreme Case and Literature Review of this Unusual Condition	Marshall Murdoch, W Grayson
1110-1115	Discussion	
1115-1140	Salvage of Distal Humerus Fractures	Michael Hausman
1140-1145	Discussion	
1145-1245	LUNCH	

SESSION THREE

Chair: *Ajmal Ikram / Steve Carter*

1245-1255	Does Carpal Coalition have an Effect on the Mechanics of the Wrist?	Gerry Cappaert, PW Jordaan, M van der Kaag, H Poggenpoel
1255-1300	Discussion	
1300-1310	Creating a Three-Dimensional Model of a Finger - Anatomy and Biomechanics Explained	Corrianne van Velze
1310-1315	Discussion	
1315-1325	Taylor Spatial Frames can be used as a Salvage Procedure in the Management of Non-united Distal Forearm Fractures Complicated by Sepsis	Peter Hardcastle, S Pretorius
1325-1330	Discussion	
1330-1340	The Reverse Finkelstein Test - An Important Clinical Test for Triscaphe OA	Michael Solomons, SL Carter
1340-1345	Discussion	
1345-1355	The Complex Clinical Relationship between STT Osteoarthritis and FCR Tendonitis	Michael Solomons
1355-1400	Discussion	
1400-1425	"Neuroprotective" Surgery avoiding Nerve Injury, improving Nerve Function during Surgery	Michael Hausman
1425-1430	Discussion	
1430-1500	TEA	

SESSION FOUR

Chair: *Ulrich Mennen / Corrianne Van Velze*

1500-1510	Taking the "R" out of PRP: A Simple and Cost Effective Method of Generating Autologous Platelet Rich Plasma	Marshall Murdoch, P Bernstein, E Bruinette
1510-1515	Discussion	
1515-1525	Wrist Arthroscopy in Conjunction with Fracture Fixation - The Tygerberg Experience	Cameron Anley, A Ikram, S Pretorius
1525-1530	Discussion	
1530-1540	Sensory-Motor Retuning - A Treatment Option for Focal Hand Dystonia in Musicians?	Gillian Coetsee
1540-1545	Discussion	
1545-1555	Scars: Pressure, Tape, Botox, Gels, Massage - What Really Works?	Lynne Pringle
1555-1600	Discussion	
1600-1625	Carpal Instability	Michael Hausman
1625-1630	Discussion	
1645-1730	Annual General Meeting: Members only Venue: Ironwood Boardroom, Boardwalk Conference Centre	
1930 for 2000	SASSH DINNER: Boardwalk Conference Centre Dress: Smart Casual	

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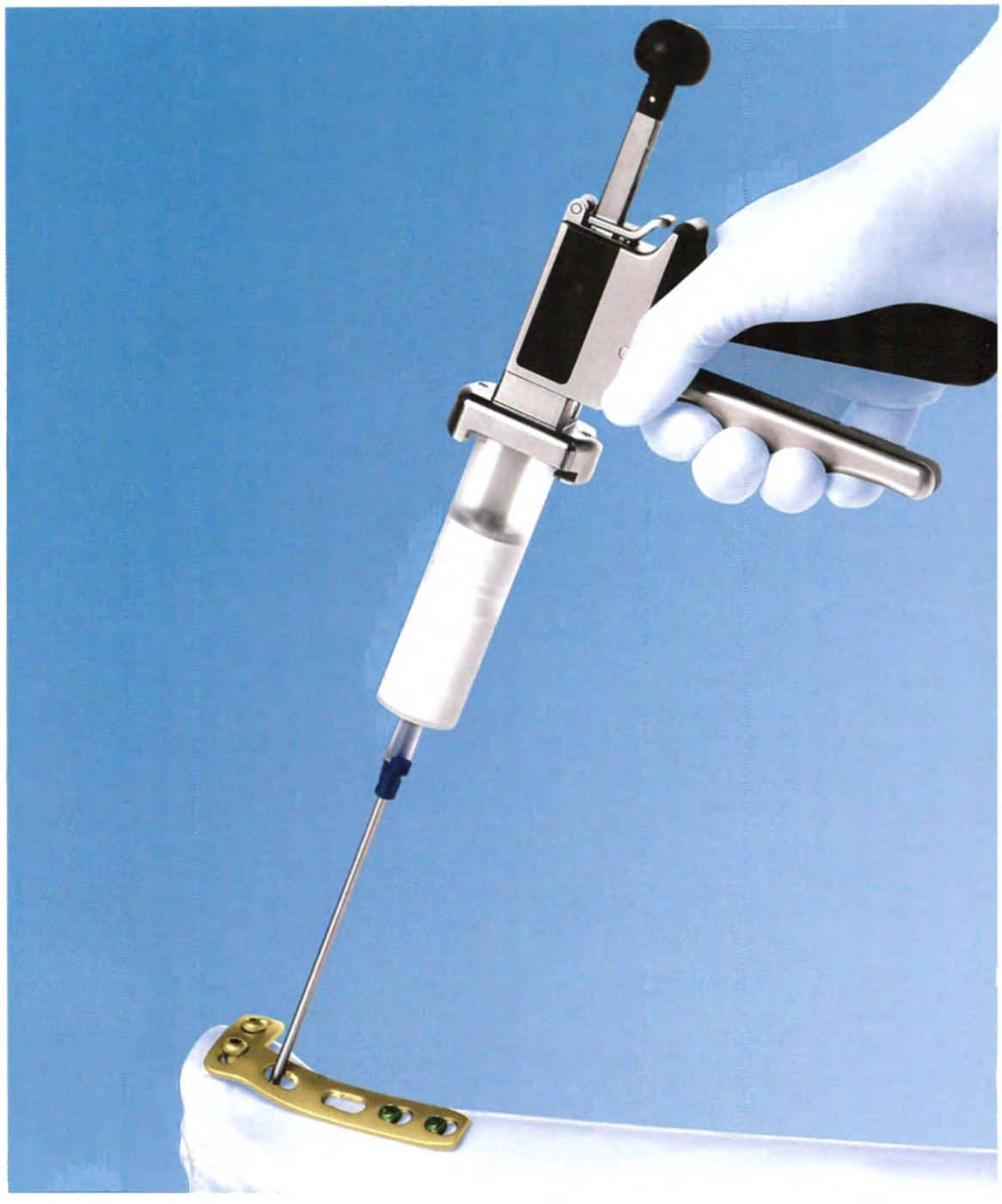

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SUNDAY 29 AUGUST 2010

0735-0750	Delegate Registration	

SESSION FIVE

Chair: *Michael Solomons*

0800-0825	Capsular-based Vascularised Bone Grafting	Dean Sotereanos
0825-0830	Discussion	
0830-0855	Carpal Fractures	Michael Hausman
0855-0900	Discussion	
0900-0925	Continued Pain after Carpal Tunnel Release	Dean Sotereanos
0925-0930	Discussion	
0930-0955	TFCC Injuries	Michael Hausman
0955-1000	Discussion	
1000-1045	TEA	

SESSION SIX

Chair: *Andrew Barrow*

1045-1110	Achilles Tendon Allograft for the Reconstruction of the Painful Failed Darrach Procedure	Dean Sotereanos
1110-1115	Discussion	
1115-1125	Lateral Epicondylitis	Ulrich Mennen
1125-1130	Discussion	
1130-1155	Elbow Fracture Dislocation	Dean Sotereanos
1155-1200	Discussion	
1200-1245	AC Boonzaier Lecture: The Analog Digit	Michael Hausman
1245-1345	LUNCH	

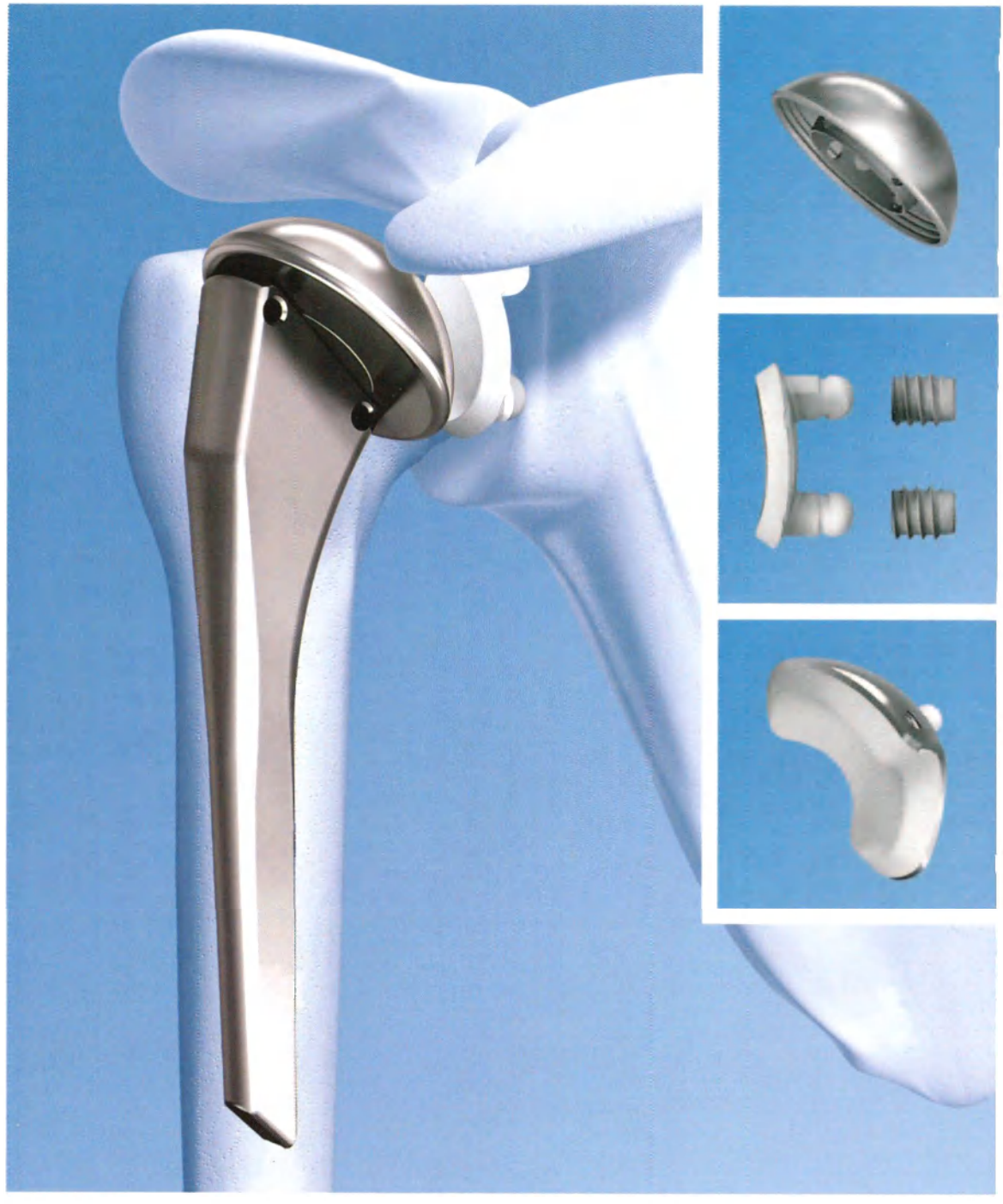
SESSION SEVEN

Chair: *Michael Carides*

1345-1410	Heterotopic Ossification	Dean Sotereanos
1410-1415	Discussion	
1415-1440	Contracture Release	Michael Hausman
1440-1445	Discussion	
1445-1510	Cubital Tunnel: Minimal Medial Epicondylectomy and In Situ Decompression	Dean Sotereanos
1510-1515	Discussion	
1515-1545	Case Presentations	
1545	Closure by President	Michael Solomons

EPOCA. Shoulder Arthroplasty.

- Hemi and total joint replacement for fractures and degenerative conditions
- Resurfacing
- Reconstruction glenoid for rotator cuff deficiencies



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ABSTRACTS

(Listed according to Scientific Program)

TRANSTHECAL FLEXOR SHEATH BLOCK FOR FINGER SURGERY IN A RESOURCE LIMITED SETTING

KJ MacIntyre, A Ikram
Tygerberg Academic Hospital/University Of Stellenbosch, Western Cape
Email: macintyrekevin@gmail.com

Background: Anaesthesia of the finger is a common requirement, in both the Accident and Emergency unit and in Hand Surgery. The recently described transthecal digital block has been advocated as a technique equal to traditional ring block. It has a similar onset and duration of anaesthesia and a lower complication rate.
The purpose of this study is to
1) Describe the technique
2) Discuss our experience regarding the efficacy, indications and complications of the block and
3) To review the relevant literature

Methods: Prospective, survey study to review the efficacy of the transthecal digital block. All injections will be given by the authors and length of time to loss of pin prick sensation will be measured. Patients will asked to rate pain of injection using a numerical analog scale that will rate pain out of ten, with zero indicating no pain and ten the worst pain imaginable.

Results: A Total of 50 patients were evaluated and all blocks were successful according to both loss of pin prick sensation and patient report using the numerical analogue scale

Conclusion: The method proved to be as effective as traditional digital ring block with the advantage that it requires one injection, uses only a small amount of local anaesthetic and has almost no risk of direct trauma to neurovascular bundles. General indications for the transthecal digital block include lacerations, fingertip injuries, foreign bodies, nail bed injuries and fractures. We advocate that medical practitioners make use of this technique where indicated. The Block has further applications with the Anaesthesia and Emergency Medicine Fields.

ULTRASOUND GUIDED AUXILIARY BLOCKS

Erich Mennen
Email: erichmennen@mweb.co.za

Would ultrasound guided blocks increase the efficacy and reliability of these procedures. The author shares his early experience performing sonar guided auxiliary blocks.
Technique, indications and pitfalls are discussed.
This study aims to ascertain whether hand surgery can in this way be performed on patients who are awake within the private practice setting.

OUTCOMES OF SURAL NERVE GRAFTING VS TRIPLE NERVE TRANSFERS IN THE MANAGEMENT OF UPPER BRACHIAL PLEXUS INJURIES.

Maree M.N. Van der Horst A. Solomons M.
Email: aksie4life@yahoo.com

Aims of study: Following upper brachial plexus (C5/C6) injuries patients will present with a loss of shoulder function and elbow flexion. Reconstructive options include sural nerve grafting or nerve transfers. When proximal stumps are available, the surgeon is faced with a dilemma which of these options to use. This study has been designed to compare the outcome of these two modalities.
Methods: From an extensive data base of brachial plexus injuries treated at the Martin Singer Hand Unit at Groote Schuur Hospital suitable patient folders were retrospectively reviewed.
Results: The results will be presented.

MACRODYSTROPHIA LIPOMATOSA OF THE HAND AND UPPER LIMB

Sam Golele
Email: goleless@samedical.co.za

Aim of Study: The aim of the study is to review the complexity of managing Macrodystrophia lipomatosa in terms if treatment and outcome.
Method: Retrospective review of 3 cases: 1 adult and two children.
Results: One patient has carpal tunnel release, one had de-bulking and one had an amputation.
Conclusion: Treatment of the above condition is challenging and the outcome of the results is depended on the expectation of the patients.

BRACHIAL PLEXUS NERVE TRANSFERS IN ADULTS

Michael Hausman
Email: michael.hausman@msnyuhealth.org

Reconstruction after devastating adult brachial plexus injuries has been changed by nerve transfers and free, functional muscle transfers. Optimal treatment is based on early distinction between pre and post ganglionic lesions and neuropraxia vs. neurotmesis. Earlier reconstruction emphasizing short reinnervation distances using good donor nerves can improve the prognosis. In cases of limited donor nerves, shoulder arthrodesis may be preferred

ULNAR-SIDED WRIST PAIN

Michael Hausman

SNAKE BITE TO THE UPPER LIMB - OUR EXPERIENCE AT DR GEORGE MUKHARI HOSPITAL

Khetani (Solly) Bila, S Golele
Email: sollybila@gmail.com

Aim: To determine the outcome of the patients treated for snake bite to the upper limb.
Method: A retrospective study was conducted at our hospital, Department of Hand and Micro Surgery, looking at the records of patients treated for snake bite to the upper limb from September 2006 to April 2010. A total of 13 patients were identified. The inclusion criteria was a history of snake bite where a snake was seen or where bite marks were visible.
Results: A total of 13 patients' files retrieved, their age ranged from 8 - 68 years. The average age was 31. We had 4 females. 9 males and 3 children. There were 2 deaths 7 compartment syndromes, 3 hand abscesses, and 3 conservative treatments. All surviving patients had good upper limb function.
Complications:
1. Acute renal failure
2. Reperfusion syndrome
3. Skin defect
4. Scar

Conclusion: Snake bite might look very trivial but potentially fatal. Late presentation and delay of treatment my lead to serious complications.

HOOK OF HAMATE FRACTURES: CLINICAL AND RADIOLOGICAL POINTERS TO AVOID MISSING THIS INJURY

Ian Koller, M Solomons, S Carter
Email: iankoller@gmail.com

Hook of hamate fractures are easily missed injuries frequently diagnosed late as a symptomatic non union. In a sporting nation such as ours, the diagnosis of these fractures should be considered in patients presenting with a history of volar ulna sided wrist pain. The association between racket sports and this injury has been well documented.
We present a retrospective analysis of 8 such patients all of whom are actively involved in sporting activity. Meticulous clinical examination aided by appropriate diagnostic imaging will confirm the diagnosis. Pain with resisted flexion of the ring and little fingers in ulna deviation was a consistent clinical finding in our series. We believe that this provocative test is very valuable for the early clinical diagnosis of hook of hamate fractures and should be confirmed by CT scan. Though MRI is often the image modality of choice in wrist pain workup, 38% of the patient cohort had a MRI as part of the initial workup by the referring doctor which failed to identify the pathology and led to a delay in diagnosis.
All patients had an excision of the hamate hook with rapid relief of symptoms and a return to previous levels of sporting activity.

ACQUIRED DIGITAL ARTERIO-VENOUS MALFORMATION: PRESENTATION OF AN EXTREME CASE AND LITERATURE REVIEW OF THIS UNUSUAL CONDITION

Marshall Murdoch, W Grayson
Email: marshall.murdoch@gmail.com

Introduction: Arteriovenous malformations (AVM) of the digits are usually congenital, however, acquired forms have been reported sporadically. Previous case reports all depict small, circumscribed lesions of the fingertips. The case presented is, we believe, the most extreme such lesion.
Findings: The case involves the left middle finger of a 51 year old male. The lesion evolved over 4 months following a minor injury. At presentation, a 4 x 4cm, high flow lesion of the fingertip was noted. The surrounding skin, sensation and nailbed were preserved. Bony destruction of the phalynx distal to the FDP insertion was noted on x-ray.
Reconstruction and Results: A volar flap was preserved while the bulk of the malformation was excised. Both digital arteries were separated from the digital nerves and ligated well proximal to the lesion, below the DIPJ. Remaining ectatic vessels were ablated by selective bipolar electrocautery. A cortico-cancellous iliac crest bone graft was shaped to resemble a distal phalynx and inset with a tension band wire and axial Kirchner pin. The flap was tailored and inset over the bone graft. On histology, multiple large ectatic vascular spaces, lined by a monolayer of bland vascular endothelium were noted. In keeping with the histology of previously described cases, no internal elastic lamina was demonstrated in these vascular spaces. Interestingly, a pure form of Masson's tumour (intravascular papillary endothelial hyperplasia) was also noted, as a reaction to organizing thrombus from a previous biopsy.
Conclusion: Acquired AVM of the fingers are rare cases. This example represents the extreme end of a clinical spectrum. The reconstruction is presented as no literature precedent for local reconstruction exits.

SALVAGE OF DISTAL HUMERUS FRACTURES

Michael Hausman

Parallel plating techniques for distal humerus fractures have lowered the nonunion and failure rate from 25% or more to nearly zero. While increasingly vocal proponents advocate total elbow arthroplasty for severe or failed distal humerus fractures, we must consider the relative salvage options for a failed TEA vs. failed ORIF. Furthermore, does "elderly" truly equal "low demand" as some have suggested?

DOES CARPAL COALITION HAVE AN EFFECT ON THE MECHANICS OF THE WRIST?

PW Jordaan, G Cappaert, M van der Kaag, H Poggenpoel
Email: pieter.suzanne@gmail.com

Lunotriquetral coalition is the most common carpal coalition with an incidence of 0,1% in the general population.
Carpal dislocations are generally described as a spectrum of injuries ranging from single carpal dislocations to perilunate and lunate dislocations. Severity of injuries depend on the degree of instability around the lunate as classified by Mayfield.
Patients with lunotriquetral coalition with associated trauma usually present with fractures of the coalition rather than wrist instability.
Here we present a case with lunotriquetral coalition with a complete dislocation of the wrist following trauma.
We suspect that the lunotriquetral coalition contributes to an altered translation of forces through the carpus leading to a possible higher incidence of wrist dislocations following trauma.

CREATING A THREE-DIMENSIONAL MODEL OF A FINGER - ANATOMY AND BIOMECHANICS EXPLAINED

Corrianne van Velze
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A three dimensional model of a finger is one of the assignments expected of the students enrolled for the Post Graduate Diploma in Hand Therapy, presented every 2nd year by the University of Pretoria. Students are required to build a working model of a finger, which consists of at least 3 joints, and is anatomically correct. The joints must be able to move but they may not include a hinge, so that it simulates a proper joint.
The aims of the assignment are to:

- Increase practical knowledge of the anatomy of the finger.
- Appreciated the link between structure and function.
- Appreciate the importance of balance.
- Learn and apply biomechanics.
- Learn more about the characteristics of materials.
- Being able to explain various finger conditions based on anatomy and biomechanics.
- Have a model of a finger for use in a clinical setting.

During 2009 hand therapy students created a finger model after they had completed the Biomechanics and Anatomy modules of the course. In their presentation, they were required to explain a typical hand condition making use of their model. They were also required to submit a "Reflection", outlining how they went about creating the model and all the benefits and frustrations they experienced when doing this assignment.
The models presented by the 2009 group of students were of an extremely high standard. This presentation will focus on the amazing benefits of creating a 3D model of a finger and to showcase some of the best models submitted in 2009.

TAYLOR SPATIAL FRAMES CAN BE USED AS A SALVAGE PROCEDURE IN THE MANAGEMENT OF NON-UNITED DISTAL FOREARM FRACTURES COMPLICATED BY SEPSIS

Peter Hardcastle, S Pretorius
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Aim of Study: To verify whether the use of a Taylor Spatial Frame is an acceptable salvage procedure in patients who present with non unions of distal forearm fractures complicated by superficial or deep sepsis.
Method: Four patients with non unions of distal forearm fractures complicated by superficial or deep sepsis where referred to the Tygerberg Hands unit. Patients were taken to theatre and a Taylor Spatial Frame was applied and thorough debridement done. The deformities where corrected with the use of the Taylor Spatial Frame. Patients where followed up, serial radiographs where taken to assess union and alignment. All patients were taken to union, the TSF's where removed between three to four months post surgery. Patients were referred for physiotherapy to help restore range of movement and hand function.
Results: Union and acceptable alignment was achieved in all patients, sepsis completely resolved and patients had improved hand function
Conclusion: Non united distal forearm fractures complicated by sepsis present one with a treatment dilemma. The use of a Taylor Spatial Frame is an acceptable treatment option; it allows alignment to be restored as well as union to be achieved.

THE REVERSE FINKELSTEIN TEST - AN IMPORTANT CLINICAL TEST FOR TRISCAPHE OA

Michael Solomons, S Carter
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Scaphotrapezialtrapezoid osteoarthritis (STT OA) can occur as an isolated entity or in combination with trapezio-metacarpal OA. As an isolated primary condition, patients present with vague and diffuse radial sided pain. When found in combination with basal joint OA, examination can be confusing as these patients are tender over the trapezium and the stress tests for basal joint OA can elicit pain in the STT joint.
The Orthopaedic literature states it is very difficult to separate these 2 conditions on examination and that STT joint tenderness is the key clinical finding.
The authors find severe and sharp pain on forced radial deviation of the wrist to be a sensitive and specific test for this condition. Just like the diagnosis and subsequent management of De Quervains tendonitis would be limited without the application of a Finkelstein maneuver, so too is the correct management of radial sided wrist pain rendered incomplete without the Reverse Finkelstein Test.

THE COMPLEX CLINICAL RELATIONSHIP BETWEEN STT OSTEOARTHRITIS AND FCR TENDONITIS

Michael Solomons

Patients presenting with volar radial sided wrist pain often have clinical and radiological evidence of degenerative changes in the STT joint. These patients might also present with a spectrum of findings ranging from severe pain in the volar forearm to pain on wrist dorsiflexion. The FCR tendon runs in a synovial lined fibro-osseous tunnel directly over the STT joint and is therefore at risk of mechanical trauma in the face of degenerative changes in this joint. The 2 pathologies will be discussed as well as a diagnostic algorithm.

"NEUROPROTECTIVE" SURGERY AVOIDING NERVE INJURY. IMPROVING NERVE FUNCTION DURING SURGERY

Michael Hausman

Iatrogenic nerve injury is surprisingly common. Strategies are available to minimize the risk, especially during complex revision surgery. Furthermore the outcome of procedures dependent on normal neuromuscular function, such as reverse total shoulder arthroplasty, may be improved by recognizing and treating compromised nerve function.

TAKING THE "R" OUT OF PRP: A SIMPLE AND COST EFFECTIVE METHOD OF GENERATING AUTOLOGOUS PLATELET RICH PLASMA

Marshall Murdoch, P Bernstein & E Bruinette

Introduction: Platelet-rich plasma (PRP) is a practical application of tissue engineering. Marx has revised the original definition: PRP is the generation of 5ml of autologous plasma with a platelet count above 1 000 000/µl.
Methods and Materials: 5 Volunteers submitted whole blood for PRP generation. 8 citrated glass tubes (4.5ml draw) were collected. In addition an EDTA tube was filled. The citrate tubes were subjected to a "soft spin" (1000g.min) to separate plasma from red cell mass. The plasma was subjected to a "hard spin" (4600g.min) to obtain a platelet pellet and platelet poor plasma (PPP). The pellet was resuspended in 1.25ml of PPP to obtain PRP. Pooled PRP and whole blood from each volunteer was submitted to Ampath Laboratories for relative platelet counts.
Results: The mean plasma volume after the soft spin step was 12.76 ml (range 10.6 - 15.50). The mean PRP harvest after the hard spin step was 4.68ml (range 4.2 - 5.2). Baseline platelet counts were all within normal range: mean 318 000/µl (range 221 000 - 407 000). The PRP platelet counts had a mean of 1 115 600/µl (range 906 000 - 1 463 000) and the mean relative concentration was 3.5 fold (range 3.31 - 3.72).
Conclusion: Although cost and technical difficulties have dampened clinical enthusiasm, the widespread use of PRP in hand surgery is anticipated. The described method is both simple and highly cost-effective and can be employed in both theatre and outpatient facilities. The results validate this method of PRP generation within the framework of current research and clinical data.

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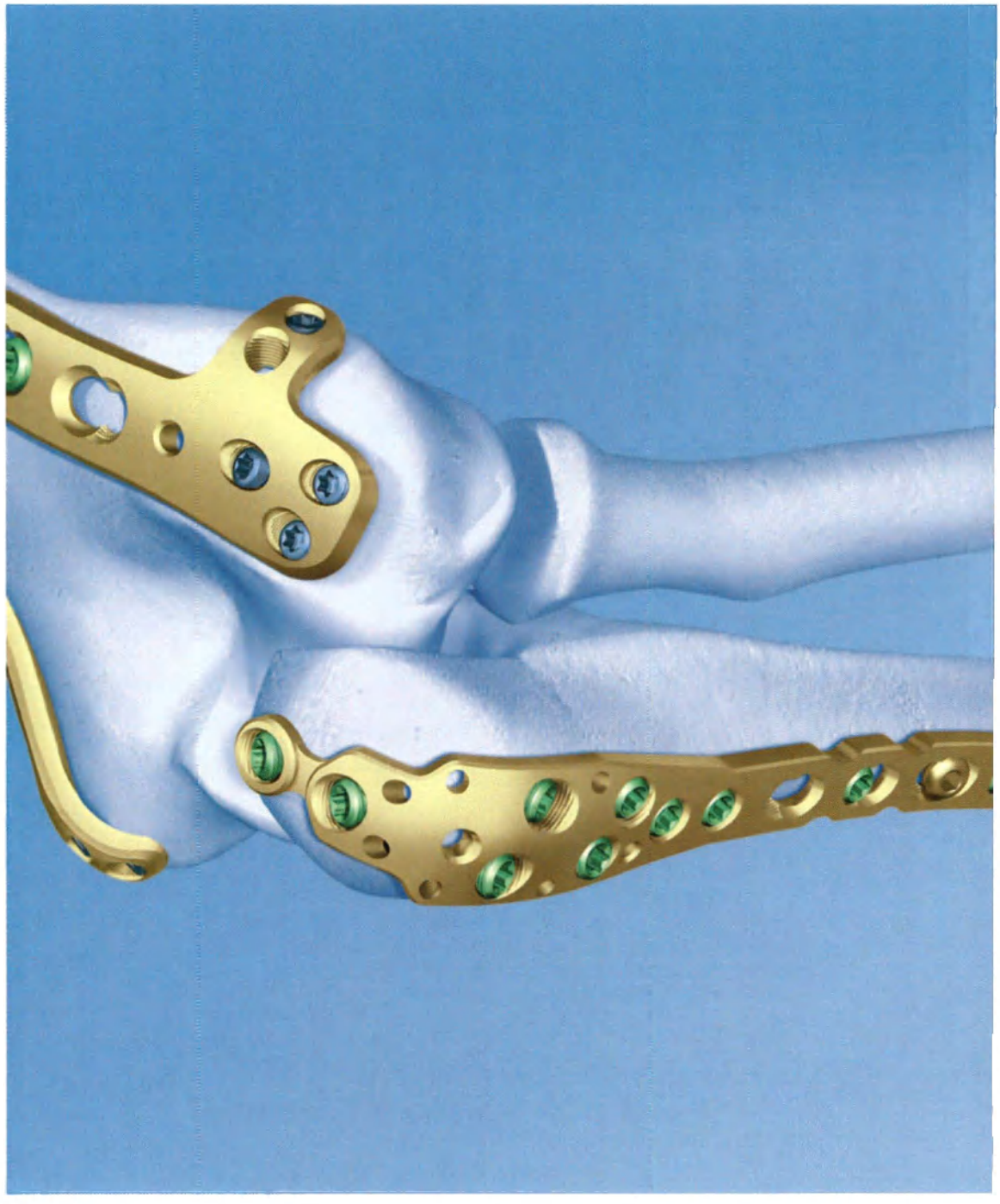

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WRIST ARTHROSCOPY IN CONJUNCTION WITH FRACTURE FIXATION - THE TYGERBERG EXPERIENCE

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Aim of study: To establish if the addition of wrist arthroscopy plays a significant role in improving reduction and identifying additional pathology in distal radius fractures treated with volar locking plates.
Method: Patients with distal radius fractures requiring volar plate fixation were included in this study. Once the fracture had been exposed a volar plate was applied with screws proximally and k-wires where used to maintain the articular surface reduction. The reduction was confirmed with an image intensifier. A wrist arthroscopy was then performed to directly assess the reduction and to exam for additional soft tissue pathology. All patients are followed-up by an occupational therapist at six months to document wrist range of motion, grip strength and a DASH score.
Results: In order to improve the statistical power of this study, data collection is ongoing. Initial results have shown that the addition of the arthroscopy improved the articular surface reduction in 58% (7/12) with soft tissue injuries discovered in 17% (2/12)
Conclusion: The addition of an arthroscopy during fracture fixation allows for a detailed inspection of the articular surface and thus improves anatomical reduction, weather this improvement is significant will be determined in the follow-up of these patients.

SENSORY-MOTOR RETUNING - A TREATMENT OPTION FOR FOCAL HAND DYSTONIA IN MUSICIANS?

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Focal Hand Dystonia in musicians is a disabling task-specific movement disorder, characterised by an abnormal pattern of muscle activity and loss of voluntary control of extensively trained movements. Approximately 1% of professional musicians are affected by the disorder, which often leads to termination of their career.
The specific pathophysiology remains unclear, but it appears that the aetiology is multi-factoral. Maladaptive cortical plasticity appears to be at the centre of the sensory and motor anomalies that characterise the condition. Current treatment options for this type of Dystonia are suboptimal and time consuming. Sensory-Motor Retuning (SMR) is a therapy approach that aims to modify the cortical representation of the fingers, thus reorganising the representation of the affected hand.
A single case study was undertaken on a professional guitarist who presented with poor isolated index finger motion affecting his ability to play competently. Due to his specific presentation and high level of motivation, the SMR technique was selected as an appropriate intervention to facilitate recovery of his guitar-playing skills. The intervention is expected to show a significant impact, the details of which will be discussed in the presentation. Recommendations will be given regarding the relevant applications of this technique.

SCARS: PRESSURE. TAPE. BOTOX. GELS. MASSAGE - WHAT REALLY WORKS?

Lynne Pringle
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Aim: A prospective study to compare different modalities for scar management.
Method: random selection of patients who received scar management in different modalities: pressure, taping, Botox, silicone sheets and gels, and massage.
Note was taken of ease of application, cost effectiveness, onset time of application, duration of application, accessibility to products, and outcome.
Results will be discussed, which are favourable for surgeon and therapist, and ultimately our patients.

CARPAL INSTABILITY

Michael Hausman

Generations of models for carpal instability have failed to account for observed findings and the failure of specific anatomic injuries to consistently correlate with observe instability patterns. The evolution of the carpus and our knowledge of carpal instability is used to provide a rationale for how to interpret, conceptualize in three dimensions and treat common instability patters, including the concept of rotational midcarpal instability.

CAPSULAR-BASED VASCULARISED BONE GRAFTING

Dean Sotereanos
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CARPAL FRACTURES

Michael Hausman

Scaphoid fractures are the most common carpal bone fractures and treatment remains a challenge. Improved understanding of the deforming forces may modify our treatment protocols, emphasizing rotational control. In addition, new designs for vascularized flaps may simplify and improve this procedure which has not lived up to its early expectations

CONTINUED PAIN AFTER CARPAL TUNNEL RELEASE

Dean Sotereanos

TFCC INJURIES

Michael Hausman

The spectrum of ulnar-sided wrist pain must be considered, as midcarpal pathology frequently attends TFCC injuries. A new diagnostic test is described along with a dry arthroscopic method for transosseous TFCC repair.

ACHILLES TENDON ALLOGRAFT FOR THE RECONSTRUCTION OF THE PAINFUL FAILED DARRACH PROCEDURE

Dean Sotereanos

LATERAL EPICONDYLITIS

Ulrich Mennen
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The common term "Tennis Elbow" is really a misnomer.
This mainly degenerative and lesser inflammatory condition has been given various names because the etiology is still not certain. Because of this uncertainty, numerous treatment options have been tried, all claiming some success.
Understanding the anatomy and the cause of the pain dictates that the extensor muscles must be relaxed by a wrist extension splint 24/7. Local cortisone with a long-acting analgesic injection gives immediate relieve.
Failed conservative management may demand surgical release. A simple surgical method is described and the results discussed in a personal series of 98 cases.
The satisfactory results indicate that the technique of this method can be strongly recommended.

ELBOW FRACTURE DISLOCATION

Dean Sotereanos
AC BOONZAIER LECTURE

THE ANALOG DIGIT

Michael Hausman

HETEROTOPIC OSSIFICATION

Dean Sotereanos

CONTRACTURE RELEASE

Michael Hausman

Specific elbow injury patterns are frequently associated with stiffness. The pathoanatomy is frequently predictable from the injury and can be treated by either open or arthroscopic release. The "Column Procedure" is the best approach to the lateral side of the elbow while the medial "Over the Top" procedure permits access to the anterolateral capsule not safely accessible from the lateral side. Ulnar nerve release is necessary if there is an extension contracture. Reliable contracture release changes the priorities of elbow trauma from motion to healing, with subsequent release to restore motion once healing is assured. Arthroscopy may facilitate earlier treatment of pediatric contractures.

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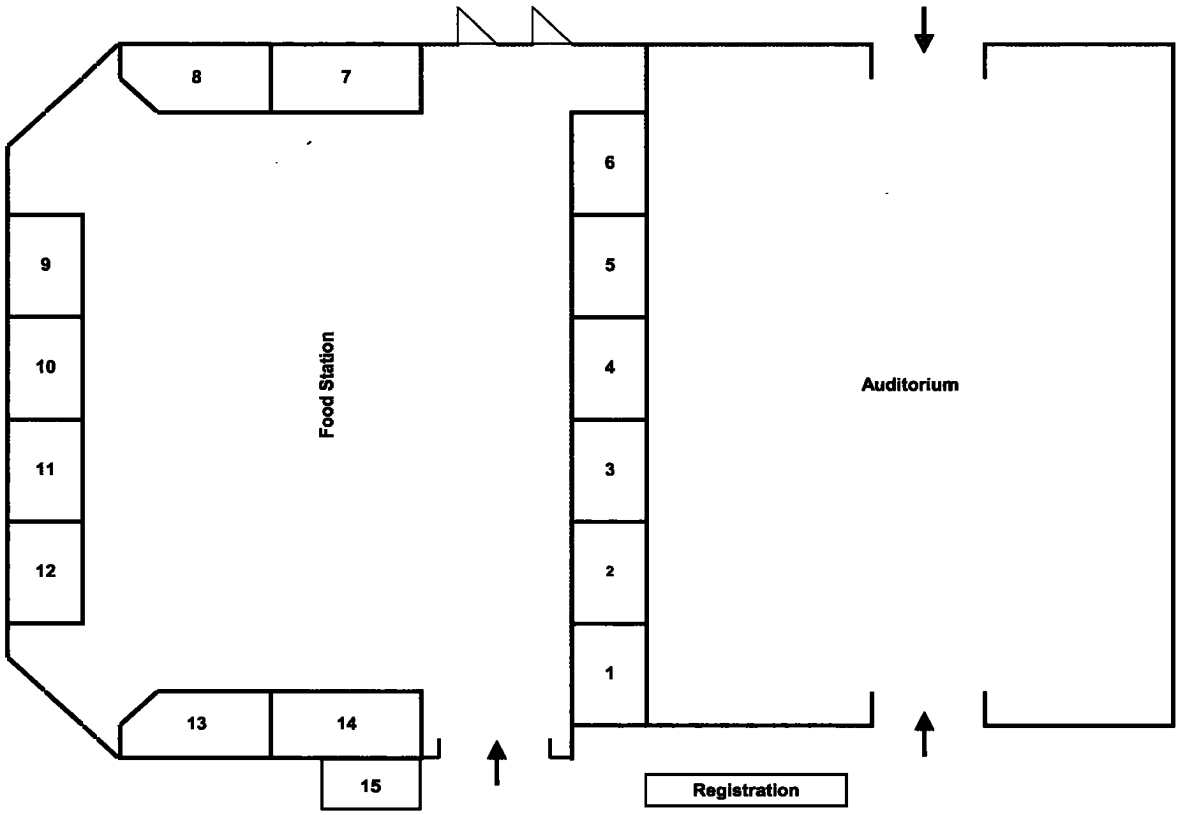

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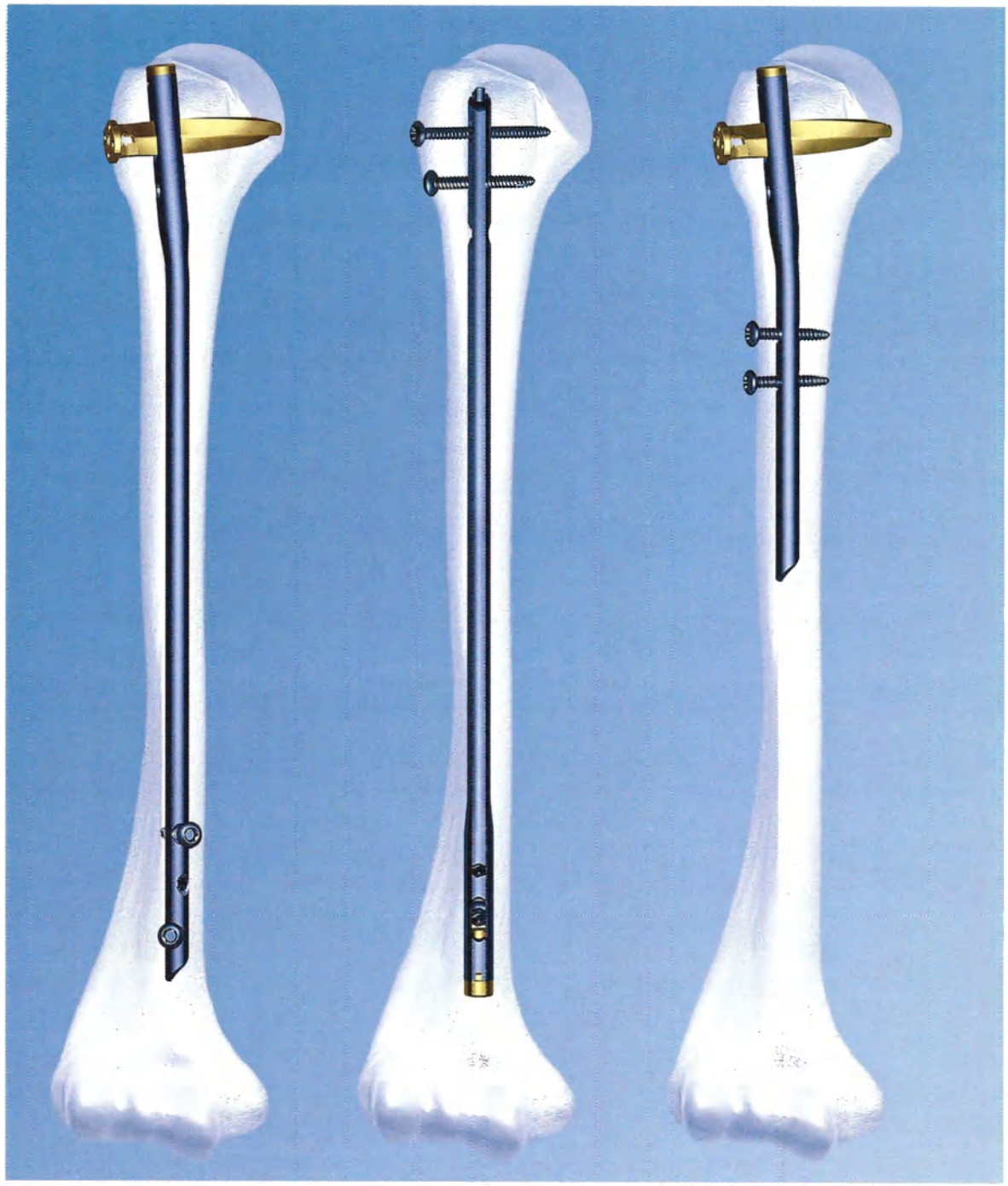

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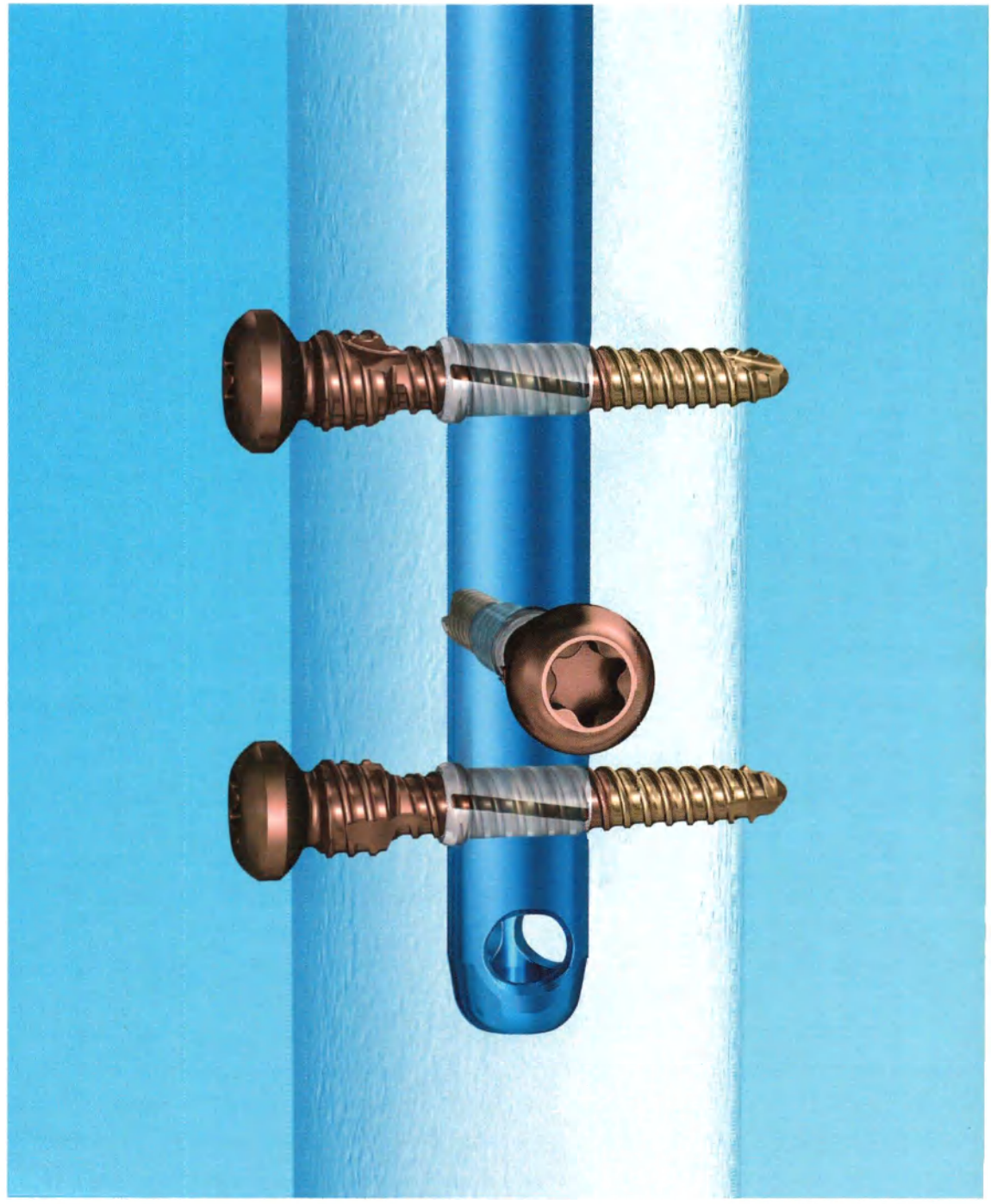

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