THE SOUTH AFRICAN SOCIETY FOR SURGERY OF THE HAND

46TH CONGRESS

CHAMPAGNE SPORTS RESORT

DRAKENSBERG, KWA-ZULU NATAL
SOUTH AFRICA

28 - 30 AUGUST 2015

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Contents

Welcome Message from the President

Dr Erich Mennen

Dear delegates

I would like to extend a warm welcome to each and every one of you attending our annual conference.

The Drakensberg makes for a wonderful venue in a picturesque and relaxing environment.

A special word of welcome to our esteemed invited guest Dr. Mark Pickford from the UK.

Thank you dr .Pickford for travelling so far and for sharing your valuable knowledge with us.

We have the privilege of listening to an array of talks from our local faculty.

Every year sees an increase in the number of submitted papers.

The interest in hand surgery is certainly growing in South Africa!

I hope you have a worthwhile and entertaining weekend.

Yours sincerely

Erich Mennen
President
SASSH

Welcome Message from the Congress Organiser

Dr Nikki Van Der Walt

Welcome to all delegates

So once again the Congress brings us to this beautiful place in the majestic Drakensberg. Take a deep breath (of fresh mountain air), sit back and enjoy an excellent academic program.

We thank Dr. Mark Pickford for accepting our invitation to be the guest speaker at this year's Congress and wish him a pleasant stay in our Country.

By now you know that these Congresses are an opportunity to learn and discuss – feel free to ask your questions and give your opinions.

"The more extensive a man's knowledge of what has been done, the greater will be his power of knowing what to do" – B. Disraeli

Enjoy the meeting.

NIKKI VAN DER WALT

International Visitor

Mark Pickford

Mark Pickford from the UK - Consultant Plastic Surgeon with a Specialist Interest in Hand Surgery, is a former Hand Fellow at the Christine M Kleinert Institute for Hand and Microsurgery and is based at the Queen Victoria Hospital in Sussex, one of the largest Plastic Surgery units in UK.

His hand surgery practice encompasses all aspects of adult hand surgery including wrist instability and he also has a major interest in paediatric hand surgery including the treatment of congenital hand differences.

Dr Pickford has a strong commitment to teaching and training and has in recent years been a committee member and regular contributor to the excellent Instructional courses on Hand Surgery organised by the British Society for Surgery of the Hand.

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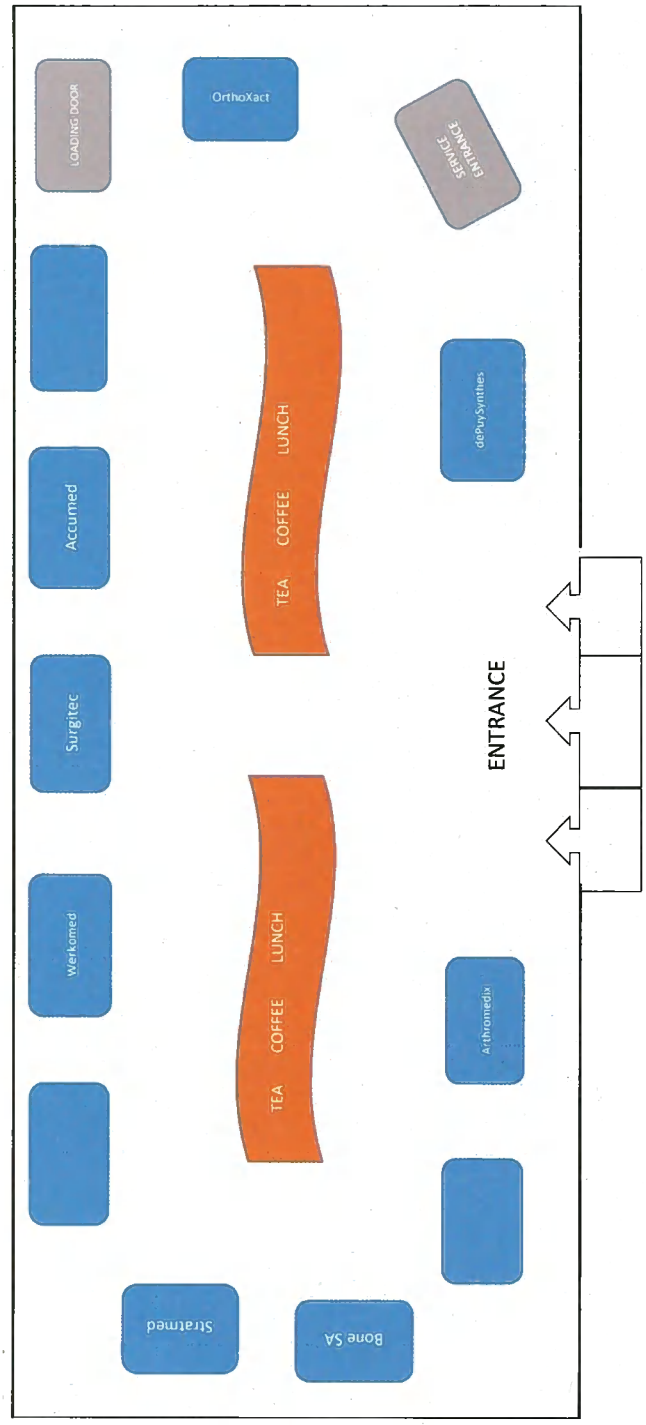
Trade Exhibitor Floor Plan

The President and Executive Committee of SASSH would like to thank the trade for their attendance and participation of this event



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Prof Ulrich Mennen

From: SASSH <sassh@iafrica.com>
Sent: 30 August 2015 07:55 AM
To: ulrichmennen@gmail.com
Subject: Awards - SASSH Congress 2015
Attachments: Syd Biddulph.docx

Flag Status: Flagged

Dear Ulrich,

Attached Syd Biddulph's submission as discussed.

Kind regards,
Andi

Prizes and Awards for 2015 Congress

THERAPIST PRIZE **2015**

Taryn Spark - Impairments and functional outcomes after flexor tendon repair at Chris Hani Baragwanath academic hospital

REGISTRAR PRIZE **2015**

Mark Roussot - Hand infections in patients with human immuno-deficiency virus

ISIDORE KAPLAN LITERARY AWARD **2015**

Syd Biddulph – A possible role of synovial fluid in bone healing

AFFORDABLE MEDICAL AWARD **2015**

Antoine Roche

ORTHO-XACT BARRY O'KELLY MEMORIAL PRIZE **2015 Most Original Paper**

Adrian Smit- Ligament reconstruction of the unstable CMC joint: An alternative surgical technique

STRATMED PRIZE for BEST RESEARCH PAPER **2015**

Dirk van der Spuy - The relationship between trapezium union, CMC joint instability and function following pollicisation

TROPHY for THE BEST EXHIBITION STAND **2015**

Due to the original trophy being lost we obtained a **Laurence Chait** sculpture
Frits Potgieter to return trophy on behalf of **MACROMED (now OrthoXact)**

ulrichmennen.co.za

2015 Best Exhibition Stand goes to **BONE SA** – Ana Sterrenberg

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General Announcements / Congress Information

CPD REGISTER

- Discovery Health will handle the CPD formalities on a daily basis
- Scanning will be done twice daily
- Approximately 7-10 days post-congress, you will receive notification 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

TRADE EXHIBITORS

Kindly make every effort to visit all the stands

Teas and lunches will be served in the trade exhibition area

DRESS CODE

Casual attire for congress sessions and smart casual for the social function

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 function
- 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

INFORMATION/REGISTRATION DESK

The Information/Registration Desk will be situated in the Sentinel Room (Trade exhibition area). 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

2015 Congress Organizing Committee

Congress Chairman	Nikki van der Walt
Congress Coordinator	Andi Askew

Social

Get-together (Optional)	Friday 28 August 2015 from 18h30 onwards Champagne Sports Resort The Cathkin Arms Bar is an ideal place to meet and greet colleagues and friends.
Congress Dinner	Saturday 29 August 2015 19h30 for 20h00 Ondini Room – Champagne Sports Resort Dress: Smart Casual

Future Events

ANNUAL REFRESHER COURSE

2016	26-28 February Topic: Microsurgery (neural and vasc) Venue: Durban

ANNUAL CONGRESS

2016	26-28 August 47th Congress and Instructional Course Venue: Johannesburg (to be confirmed)

Office Bearers

President	Erich Mennen
Honorary Secretary/Treasurer	Martin Wells
Members	Johan van der Merwe Roger Nicholson Michael Solomons Nikki van der Walt
Executive Secretary/Congress Coordinator	Andrew Askew
Office	✉ 2721, Bellville SA 7535 ☎ 084 055 1152 www.sassh.co.za sassh@iafrica.com

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
2009-2011	M Solomons
2011 – 2013	J van der Westhuizen

AC Boonzaier

Memorial Lectures

1997	**PROF ULRICH MENNEN** "In 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"
2010	**DR MICHAEL HAUSMAN** "The Analog Digit"
2011	**DR MICHAEL SOLOMONS** "Where do we come from?"
2012	**DR ZSOLT SZABO** "The Human Hand – The Most Beautiful Tool"
2013	**DR JOHAN VAN DER WESTHUIZEN** "SASSH – Why do we belong"
2014	**DR RAJAH SABAPATHY** "Looking back the last 25 years – the lessons learnt"

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Scientific Program

46th ANNUAL CONGRESS AND INSTRUCTIONAL COURSE
29 – 30 AUGUST 2015
CHAMPAGNE SPORTS RESORT, DRAKENSBERG

Saturday 29 August 2015

0730-0750	Delegate Registration	N van der Walt
0750-0800	Welcome and Announcements	E Mennen
SESSION 1	**CHAIR : DR ERICH MENNEN**	
0800-0810	Dupuytren's Disease: Is a needle aponeurotomy effective?	C Anley
0810-0820	Dupuytren's involvement of the DIP joint	M Solomons
0820-0830	Discussion	
0830-0840	Hyperextension mallet fracture: A forgotten concept	S Isaacs
0840-0845	Discussion	
0845-0855	Myxoma of the hand: Case report & review of the literature	D van der Spuy
0855-0905	Malignant Peripheral Nerve sheath tumours (MPNST)	L Jordan
0905-0915	Discussion	
0915-0925	Case reports: Fourth inter-metacarpal space neuromas in the hand: A rare cause for localised pain in the hand	D van der Spuy
0925-0930	Discussion	
0930-0940	Kinesio Taping of the Metacarpophalangeal joints and its effect on hand function in individuals with Rheumatoid arthritis	S Roberts
0940-0950	Impairments and functional outcomes after flexor tendon repair at Chris Hani Baragwanath academic hospital	T Spark
0950-0955	Discussion	
0955-1005	Hand infections in patients with human immuno-deficiency virus	M Roussot
1005-1010	Discussion	
1010-1040	**TEA**	
SESSION 2	**CHAIR : DR MARTIN WELLS**	
1040 - 1050	Nerve transfers for C5/6 Brachial Plexus Injury, our experience with dorsal approach and early results	A Ikram
1050 - 1100	The result of surgically operated Thoracic Outlet Syndrome (TOS)	M Solomons
1100 - 1105	Discussion	
1105 - 1115	The importance of the triceps footprint: A case report and update on the literature	A Smit
1115 - 1120	Discussion	

1120 - 1130	Four limb amputation: A multidisciplinary triumph	M Carides
1130 - 1135	Discussion	
1135 - 1200	Distant pedicle flaps for the hand and upper limb	M Pickford
1200 - 1205	Discussion	
1205 - 1215	Hand-care for all: towards strategic conversations	K van Stormbroek
1215 - 1220	Discussion	
1220 - 1230	Allograft reconstruction utilising a limited two-incision technique for chronic distal biceps tendon rupture	A Smit

1230-1330 **LUNCH**

SESSION 3 **CHAIR : DR NIKKI VAN DER WALT**

1330 - 1400	Small free flaps for soft tissue cover in the hand	M Pickford
1400 - 1410	Discussion	
1410 - 1420	The relationship between trapezium union, CMC joint instability and function following pollicisation	D van der Spuy
1420 - 1430	Ligament reconstruction of the unstable CMC joint: An alternative surgical technique	A Smit
1430 - 1435	Discussion	
1435 - 1445	Carpal kinematics: A cadaver study of wrist motion following partial arthrodesis	I Koller
1445 - 1450	Discussion	
1450 - 1500	A novel ligament sparing dorsal approach to the wrist: Keeping it simple	M Roussot
1500 - 1505	Discussion	
1505 – 1515	Extended Scope Hand Therapist - Led Traumatic Wrist Injury Clinic	R Midgley
1515 - 1520	Discussion	
1520 - 1530	Morbidity in scaphoid internal fixation caused by surgical technical errors and implant failure: Case report and review of technique	D van der Spuy
1530 - 1535	Discussion	
1535 - 1545	Motec wrist replacement: A retrospective review of 16 cases of 4 years	T Sluis
1545 - 1550	Discussion	
1550 - 1600	Case report: Perilunate dislocation with an intact scapholunate ligament	T. Motlolisi
1600 - 1605	Discussion	
1605 - 1615	Outcome of wound cover in degloving injuries of the hand at Kenyatta National hospital, a tertiary Kenyan hospital in Nairobi	G.O. Afulo
1615 - 1620	Discussion	

1620-1700 **TEA**

1630 -1730 Annual General Meeting (members only)

1930 Congress Dinner

Sunday 30 August 2015

0730-0750	Delegate Registration	
SESSION 4	**CHAIR : DR MIKE SOLOMONS**	
00800 - 0820	Digital advancement flaps	M Pickford
0820 - 0830	Discussion	
0830 - 0855	Fingertip injuries - distant flaps	M Pickford
0855 - 0900	Discussion	
0900 - 1000	Ethics lecture - Perspective on the Hand	U Mennen
1000-1030	**TEA**	
SESSION 5	**CHAIR : DR ROGER NICHOLSON**	
1030 - 1100	Toe to hand transfer	M Pickford
1100 - 1110	Discussion	
1110 - 1120	Recipient of Stratmed Prize - What I learned at FESSH meeting	I Koller
1120 - 1130	Recipient of Macromed Prize - What I learned at FESSH meeting	M Carides
1130 - 1140	Recipient of the Affordable Medical Annual Award	G Biddulph
1140 - 1240	19th AC Boonzaier Lecture	E Mennen
1240 - 1250	Closure of Congress	R Nicholson
1250-1400	**LUNCH**	

Abstracts

TITLE **DUPUYTREN'S DISEASE: IS A NEEDLE APONEUROTOMY EFFECTIVE?**

Author(s) **Cameron Anley, Martin Wells**

Aim of Study: The recent interest around the Clostridium Histolyticum Collagenase injections has renewed the debate around the preferred treatment options for Duypuytren's Disease. The morbidity associated with open fasciectomy or fasciotomy has led many surgeons and patients to consider less invasive procedures such a needle aponeurotomy. The goal of this study is to assess whether this is an effective treatment option.

Method: We conducted a retrospective review of patients 1 to 4 years post needle aponeurotomy to assess initial effectivity, complications, recurrence and overall patients satisfaction associated with this procedure. Follow-up is ongoing either in person or telephonically.

Results: We have performed a NA on 165 fingers in 61 patients. Although we are continuing to assess the patients, initial results look promising. The full results will be presented at the conference.

Conclusion: Initial results suggest that the use of needle aponeurotomy is a safe and effective method to treat certain stages of Dupuytren's Disease; however this can only be confirmed once the final assessment has been done.

TITLE **DUPUYTRENS INVOLVEMENT OF THE DIP JOINT**

Author(s) **Dr M Solomons**

Dupuytrens very rarely involves the DIPJ. Patients can present with flexion due to involvement of the pretendibous band or Graysons ligament. They can also present with severe hyperxtension deformity due to involvement of the lateral bands. This usually occurs with a marked flexion contracture of the PIPJ.

The author's experience with these clinical presentations and the management will be discussed.

TITLE **HYPEREXTENSION MALLET FRACTURE – A FORGOTTEN CONCEPT**

Author(s) **Dr S Isaacs / Dr M Solomons**

Aims

- Review mechanism of injury in mallet fractures (MF) in 30 adult patients.
- Identify direction of force (Hyperextension/Hyper-flexion injury) in the above group.
- Determine if direction of force predicts DIPJ volar subluxation.
- Does fragment size (% joint involvement) predict DIPJ volar subluxation?

Method

- Retrospective review - 30 patients treated for mallet fracture had x-rays reviewed, interviewed for mechanism of injury, digit affected and direction of force. A standardized questionnaire was used.

Results

- 9/30 patients: Hyperextension MF with DIPJ volar subluxation. 7/9 had joint involvement =25-50% and 2/9 = 0- 25%.
- 12/30: Hyper-flexion MF with no DIPJ volar subluxation. 4/12 joint involvement = 25-50%; 4 /12 = 75-100%; 4/12 = 0-25 %.
- 9 /30: unable to recall direction of force. 4/9 had DIPJ volar subluxation with joint involvement 25-50%. 5/9 no DIPJ volar subluxation.
  2/9 had 0-25% joint involvement; 1/9 = 50-75%; 1/9 =75%- 100%.

Conclusion

- Hyperextension mallet fracture: important subgroup - must be identified and managed surgically.
- Hyperextension Direction of force predicts DIPJ volar subluxation.
- No correlation between fragment size and DIPJ volar displacement.

TITLE **MYXOMA OF THE HAND: CASE REPORT AND REVIEW OF THE LITERATURE**

Author(s) **Dr Dirk van der Spuy, Dr Andrew van den Heever** (Radiologist), **Dr Peter Davies** (Pathologists)

The myxoma is a rare tumour with histological features resembling those of Wharton's jelly found in the mature foetus. The cut surfaces of the tumour exude mucoid material not dissimilar to ganglions. The tumour may show lobulated appearance with thickening of connective tissue on the periphery. Myxomas are most commonly found in the heart, skeletal muscles of the lower limb and jawbones. Myxomas of the upper limb are exceedingly rare with only a few case studies in the literature. This case report demonstrates a locally aggressive infiltrating myxoma involving the hand and wrist in a 78 year old man, with local recurrence after multiple debulking procedures. This case report will also review the histology, MRI findings and macroscopic findings.

TITLE MALIGNANT PERIPHERAL NERVE SHEATH TUMOURS (MPNST)

Author(s) **Liza Jordan, Tatalo Sefeane**

A case presentation

Malignant Peripheral Nerve sheath tumours (MPNST) arise from the neural tissue of peripheral nerves and are more readily diagnosed on the back drop of Neurofibromatosis Type 1. A fair, yet discrete percentage occurs spontaneously but has also been associated with radiation. Several papers have described successful resection of these tumours in the forearm with preservation of the nerve and a favourable outcome.

We present a case of a 23 year old healthy male who presented to us with a severely painful rapidly progressive mass on his forearm with ulnar nerve palsy. An excision biopsy of the mass was attempted but the tumour was fusiform and could not be separated from the ulnar nerve. Histology revealed a complex plexiform neurofibroma of the ulnar nerve with inadequate margins. A further resection cleared the margins and efforts at oncology failed due to foreign nationality. The tumour recurred within 2 months and a month later was clinically the same as before. The patient has been counselled for an above elbow amputation.

Conclusion

This case illustrates a rare manifestation of an extremely aggressive MPNST with very poor outcome. Early intervention and adjuvant therapy is advised.

TITLE CASE REPORTS: FOURTH INTER-METACARPAL SPACE NEUROMAS IN THE HAND: A RARE CAUSE FOR LOCALISED PAIN IN THE HAND

Author(s) **Dr DJ van der Spuy**

Secondary neuromas of the hand are usually a sequence of traumatic injury of the nerve and frequently seen in the peripheral cutaneous nerves, notably the digital nerves. Primary or idiopathic neuromas are well described in the distribution of the digital nerves. There are no descriptions of a Morton-like neuroma (found in the third and fourth inter-metatarsal space in the foot) in the hand localised in the inter-metacarpal space.

This small case series demonstrate similar presentations of localised pinpoint pain in the fourth inter-metacarpal spaces in two young females (ages 17 and 23). Diagnostic workup confirmed evidence of localised neuromas in the dorsal interosseii muscles, which were both explored surgically. Neuroma-like masses were excised that corresponded well to the point of tenderness. The position of both these tumours were underneath the fascia of the fourth dorsal interosseous muscles and demonstrated a clear small tumour in a nerve (neuroma in continuity) as seen in neuromas in other parts of the body.

The histology confirmed neuromas. Both patients had immediate relief post-operatively.

TITLE KINESIO TAPING® OF THE METACARPOPHALANGEAL JOINTS AND ITS EFFECT ON HAND FUNCTION IN INDIVIDUALS WITH RHEUMATOID ARTHRITIS.

Author(s) **Sarah Roberts,** Occupational Therapist

Aim: To determine the effectiveness of bilateral Kinesio Taping® of the MCP joints on pain, ulnar deviation, grip strength and hand function in elderly individuals previously diagnosed with Rheumatoid Arthritis (RA).

Methods: A repeated measure experimental design was used over a seven week period. The experimental group (n = 30) received bilateral space correction Kinesio Taping® of the MCP joints with the tape being work for 3 days per week for four weeks. The control group (n = 31) participated in 2 hour educational-behavioural joint protection (JP) workshops weekly for four weeks. Grip strength, ulnar deviation and pain were assessed weekly whilst subjective hand function was assessed on weeks 1,3 and 7.

Results: Kinesio Taping® of the MCP joints showed a significant decrease in pain (P=0.00) and ulnar deviation (P=0.00). JP was found to have a significant difference in grip strength and in certain areas of function. A significant difference for grip strength was found between groups after intervention.

Conclusion: Kinesio Taping® of the MCP joints is an effective conservative intervention to improve pain and MCP ulnar deviation in individuals with RA.

TITLE IMPAIRMENTS FUNCTIONAL OUTCOMES AFTER FLEXOR TENDON REPAIR AT CHRIS HANI BARAGWANATH ACADEMIC HOSPITAL

Author(s) **Taryn Spark, Veronica Ntslea, Lonwabo Godlwana**

AIMS OF THE STUDY

To establish range of movement (ROM), grip strength and hand function at six months post flexor tendon repair (FTR).

METHOD

44 participants were recruited consecutively. At one, three and six months post FTR ROM was measured and average Total Active Motion (TAM) determined. At three and six months post FTR participants' power and pinch grips were measured and calculated as a percentage of the unaffected hand. A QuickDASH was administered in interview format at three and six months.

RESULTS

No participants had excellent ROM outcome, 31.8% (n=14) had good outcome, 38.6% (n=17) had fair outcome and 29.6% (n=13) had poor outcome. At six months post FTR average power grip and pinch grip were 63% and 51% of the unaffected hand respectively.An average of 20.64 was scored on QuickDASH. 75% of patients who were employed prior to injury returned to work. 21 patients (48%) had complications of which 6 (28.5%) had further surgery.

CONCLUSION

Although there were some promising outcomes, participants did not consistently achieve the good or excellent functional outcomes achieved in developed countries. More research needs to be done into factors affecting functional outcome post FTR in developing countries.

TITLE HAND INFECTIONS IN PATIENTS WITH HUMAN IMMUNODEFICIENCY VIRUS

Author(s) **MA Roussot, D McGuire, T Sluis, M Solomons**

Human immunodeficiency virus (HIV) is common in South Africa, affecting approximately 1 in 10 people in the general population, and reportedly up to 1 in 5 patients with hand infections. Currently, the literature is deficient in providing evidence for a relationship between HIV infection, CD4 count and the ability to clear sepsis. Our objective is to determine if HIV infection and the CD4 count influence the ability to clear hand infections. We will report on the epidemiology and outcomes of all hand infections seen at our tertiary level hand unit over a 6-month period.The histology confirmed neuromas. Both patients had immediate relief post-operatively.

TITLE NERVE TRANSFERS FOR C5/6 BRACHIAL PLEXUS INJURY, OUR EXPERIENCE WITH DORSAL APPROACH AND EARLY RESULTS.

Author(s) **Ajmal Ikram, Cameron Anley, Dirk Vander Spuy**

Aims of study: Assess the functional results of double or triple nerve transfers for the C5/6 Brachial Plexus injury.

Method: All adult patients who presented to our institution in last two years with loss of C5 and C6 after the Brachial plexus Avulsion injury and where primary repair was not possible underwent the Nerve transfers to reconstruct the shoulder abduction, external rotation and elbow flexion as a single or two stage procedure.

Dorsal approach to the spinal accessory nerve was used for neurotisation to the SSN, Radial nerve branch to the long head of triceps was used to restore the axillary nerve function and single fascicle of ulnar nerve to the wrist flexor was utilized to target the MCN nerve to the biceps muscle.

The patients were follow- up at 6 weeks, 3 months, 6 months and 1 year. The muscle charting was done with MRC grading.

Results: We currently have done 9 patients with C5/6 Brachial plexus injury which received double or triple nerve transfers and early results shows the return of biceps function an average of 5 months, the shoulder abduction and external rotation functional recovery is incomplete.

Conclusion: Loss of shoulder abduction, external rotation can be reconstructed as a single stage procedure from the dorsal approach to the spinal accessory & radial nerve, and Oberlin transfer for elbow flexion from volar approach.

TITLE **THE RESULTS OF SURGICALLY OPERATED THORACIC OUTLET SYNDROME(TOS)**

Author(s) **Dr M Solomons**

TOS remains a controversial clinical entity. The largest subgroup has no distinct clinical diagnostic parameters and no specific investigative options.

Based on a previous study from this unit supporting good results, the author has operated on 20 patients who have failed conservative management.

The surgical technique, outcomes and complications are herewith presented.

TITLE **THE IMPORTANCE OF THE TRICEPS FOOTPRINT: A CASE REPORT AND UPDATE ON THE LITERATURE.**

Author(s) **Cameron Anley, Adriaan Smit**

Aims of study: The triceps brachii plays an important role in terminal elbow extension. Although uncommon, distal triceps tendon insertional rupture can be easily missed and may be significantly debilitating if not appropriately treated. Due to the rarity of this injury (<1% of all tendon injuries), studies are limited to small case series and biomechanical studies.

Recently there has been renewed interest in triceps tendon insertional anatomy and the preferred method of repair. This presentation includes a small case series and a review the current literature on the management of distal triceps ruptures.

Methods: This is a retrospective case series of 3 patients who underwent surgical repair of distal triceps rupture, utilising proximal metal anchors and distal bone tunnels to recreate the triceps tendon footprint. In addition we reviewed the recent literature to establish the best current practice pertaining to these injuries.

Results: Early results are promising; the follow up of these patients is ongoing and will be presented at the congress.

Conclusion: The recent literature has highlighted the importance of recreating the triceps tendon insertional footprint at distal triceps repair. We describe our technique of anatomical repair of distal triceps rupture using both proximal metal anchors and distal bone tunnels, similar to the suture bridge technique in rotator cuff repair and demonstrate satisfactory results.

TITLE **FOUR LIMB AMPUTATION: A MULTIDISCIPLINARY TRIUMPH?**

Author(s) **M. Carides**

Introduction and Aims: This is a case report of a patient who suffered multiple organ failure arising from overwhelming infection. Widespread and massive tissue necrosis necessitated amputation of all four limbs. The aim of this case study is to examine and highlight the philosophical, ethical and cost implications in the treatment of these patients

Method: Cases of peripheral tissue necrosis due to ischaemia of the extremities are not uncommon. Provided these patients survive their initial insult and tissue damage is not too widespread a satisfactory recovery may be anticipated. This case is remarkable in that this patient survived an insult so severe and injuries so widespread as to have been uniformly fatal.

Results: The patient is presently well. She has no discernable deficit in cognitive, mental or residual physical function. She is undergoing rehabilitation and she has been fitted with bilateral myoelectric upper limb prostheses and bilateral lower limb prostheses.

Conclusion: Advances in medical care and life support are likely to result in more frequent presentation of such patients. Working in a multidisciplinary team will ensure optimal outcomes.

TITLE **HAND-CARE FOR ALL: TOWARDS STRATEGIC CONVERSATIONS**

Author(s) **Kirsty van Stormbroek**

Aim: To determine what is known about the burden of hand injuries in South Africa and how hand care entities have been situated in relation to this problem over the last 20 years.

Methods: A review of available evidence and a document review of course and congress programs of SASSH and SASHT were undertaken. Data were analysed using SPSS.

Results: The incidence and prevalence of hand conditions in South Africa could not be established although common causes, types of injuries and impact on work ability were extrapolated. The frequency with which various hand conditions and modalities (evaluation and intervention) were the focus of research and professional development activities is reported. The geographical location of known services and the public/private spread is described.

Conclusion: Should hand-care for all form part of the vision of hand surgery and therapy entities in South Africa? Strategic research efforts to understand the magnitude and nature of hand injuries in South Africa are essential to developing co-ordinated and effective services, across sectors and levels of care that are comprehensive in nature (preventative, promotive, curative and rehabilitative) and significantly impact on the hand-health, and potentially the livelihood, of our population.

TITLE **ALLOGRAFT RECONSTRUCTION UTILISING A LIMITED TWO INCISION TECHNIQUE FOR CHRONIC DISTAL BICEPS TENDON RUPTURE.**

Author(s) **Cameron Anley, Adriaan Smit**

Aims of study: Distal biceps tendon rupture is an uncommon injury. Unfortunately, due to biceps retraction, surgical reconstruction of chronic distal biceps rupture is a challenging procedure which traditionally requires a large surgical exposure. We describe the use of a tendon Achilles allograft and intra-osseous radial fixation by means of an endobutton, utilising a limited exposure, to reconstruct chronic distal biceps ruptures. The retracted biceps tendon is attached to the allograft proximally through a separate transverse incision to limit scar adherence and to improve rehabilitation.

Method: This is a retrospective review of 3 patients that underwent reconstruction of a chronic distal biceps rupture. The follow up is ongoing and will involve a DASH score and range of motion.

Results: Initial results are promising. Follow-up assessment of these patients continues.

Conclusion: Reconstruction of chronic distal biceps tendon rupture utilising a Tendon Achilles allograft through a limited, two incision technique is a safe and effective method.

TITLE **THE RELATIONSHIP BETWEEN TRAPEZIUM UNION, CMC JOINT INSTABILITY AND FUNCTION FOLLOWING POLLICISATION**

Author(s) **Dr Dirk van der Spuy, Prof Michael Tonkin, Dr Nathan Trist, Dr Richard Lawson**

Forty-four pollicisations were assessed radiologically for union and stability of the trapezium as well as for stability of the carpometacarpal (CMC) joint. These parameters were compared with conventional clinical measures for strength, range of motion and function. The union rate of the trapezium was 82%. For those with non-union, the relative risk of trapezial instability was 35.0. Patients with trapezial union demonstrated significantly higher grip strength. For those with union, the relative risk of instability at the CMC joint was 1.4. Those with a stable CMC joint demonstrated significantly higher grip strength and functional results. This study suggests that the aim of obtaining union of the new trapezium is of benefit in the procedure of pollicisation.

TITLE **LIGAMENT RECONSTRUCTION OF THE UNSTABLE CMC JOINT : AN ALTERNATIVE SURGICAL TECHNIQUE**

Author(s) **Cameron Anley, Adriaan Smit**

Aim of study: Recent biomechanical studies have highlighted the importance of the Dorso Radial Ligament (DRL) in the stability of the thumb CMC joint. When indicated, the surgical procedure commonly used for the management of patients with CMC instability is an Eaton Littler (EL) procedure. However the standard EL, performed through a volar approach does not address the DRL instability. The aim of this study is to present the results of and to describe an alternative technique of base of thumb stabilisation, with an additional trapezial tunnel for the FCR sling resulting in improved stability.

Method: 4 Patients diagnosed with thumb CMC instability in the absence of OA underwent ligament reconstruction, as described above by the senior author. This is a retrospective review of these patients.

Results: Initial results are promising and will be presented.

Conclusion: Combining the EL stabilisation with a trapezial tunnel through a single volar incision may address combined dorsal and volar instability of the thumb CMC joint more effectively.

TITLE **CARPAL KINEMATICS: A CADAVER STUDY OF WRIST MOTION FOLLOWING PARTIAL ARTHRODESIS.**

Author(s) **Dr Ian Koller, Dr Michael Solomons**

Introduction: Carpal kinematics has been the subject of extensive research for many years. Modern imaging techniques have generated complex models of individual and coupled carpal bone motion. Much of this literature is to be found in bio-engineering texts. There are far fewer kinematic studies of wrist motion following surgical intervention. Studies of midcarpal fusions have presented a range of motion approaching 60% as compared to the opposite side. This represents a range that exceeds the physiological range of the radio lunate articulation. It is not clear from the current literature how this occurs and whether it results from differences in measurement techniques or represents true motion.

Aims of study: We aim to measure carpal bone rotation and identify kinematic factors that affect the range of motion of the wrist following partial arthrodesis.

Method: Fresh cadaver specimens were prepared and mounted. 4 corner fusions followed by 3 corner fusions with triquetrum excised were performed. Carpal bone position was measured radiographically with the aid of fluoroscopy.

Results and conclusion will be presented and discussed with reference to current literature.

TITLE **A NOVEL LIGAMENT SPARING DORSAL APPROACH TO THE WRIST – KEEPING IT SIMPLE**

Author(s) **MA Roussot, D McGuire, M Solomons**

The dorsal approach to the wrist is the workhorse for intra-articular surgery, avoiding risk to neurovascular structures and allowing exposure of the carpus. Some controversy exists regarding the optimal manner in which to perform the approach and avoid injury to essential dorsal ligaments. We describe an approach utilised in our institution for the past 3 years, which preserves the dorsal radiocarpal and dorsal intercarpal ligaments, provides excellent exposure, is easy to perform and allows capsuloplasty during closure if necessary. Conditions treated with this approach include: open reduction and internal fixation of carpal fractures and dislocations, total wrist arthroplasty, proximal row carpectomy and midcarpal fusion.

TITLE **EXTENDED SCOPE HAND THERAPIST- LED TRAUMATIC WRIST INJURY CLINIC**

Author(s) **Robyn Midgley & Gaylene Branstiter**

Aim: Wrist fractures and ligament injuries are frequently missed at Accident & Emergency Units resulting in non-unions and late presentation for salvage procedures. A Therapist-Led Traumatic Wrist Injury Clinic was established to reduce waiting times to a specialist opinion and avoid delay in identifying wrist ligament or bone injuries. The aim of this paper is to evaluate the efficacy of the Therapist-Led Traumatic Wrist Injury Clinic.

Methods: Two audits of the Therapist-led Traumatic Wrist Injury Clinic were conducted over an 18 month period. Waiting times from referral to the clinic, and from the clinic to intervention were recorded. Correlation of the therapist and hand surgeon clinical assessment and diagnostic findings was performed. Patient outcome measures following surgical and / or therapeutic intervention included grip strength, reduction in pain, range of motion, return to function and full work capacity.

Results: Fifty two patients participated in Audit 1 and 41 patients participated in Audit 2.

The average waiting time from referral to intervention was 2 weeks for non-surgical and 6-8 weeks for surgical intervention. A total of 14 scaphoid fractures, 29 ligament tears, 12 ganglions, 22 Tendonopathy's and 7 bone contusions were identified by the Therapist-led Wrist Injury Clinic. 5/29 ligament tears required surgical intervention. 94% of patients regained normal grip strength & active range of motion of the wrist, 94% of patients returned to full work duty and return to full function, 87% hand no pain/significantly reduced pain following treatment.

Conclusion: The Therapist-led Traumatic Wrist Injury Clinic facilitates early identification of wrist fractures and Grade I-IV ligament injuries. The shortened patient pathway from injury to treatment permits immediate access to a hand surgeon for review and listing for surgery if necessary, thereby increasing the patient's chances of having a primary repair versus a salvage procedure.

TITLE **MORBIDITY IN SCAPHOID INTERNAL FIXATION CAUSED BY SURGICAL TECHNICAL ERRORS AND IMPLANT FAILURE: CASE REPORTS AND REVIEW OF TECHNIQUE.**

Author(s) **Dr DJ van der Spuy, Dr A Ikram**

Surgical treatment for scaphoid fractures (non-displaced and displaced) has become a popular treatment modality with higher union rates and shorter cast immobilisation. The current headless compression screws should achieve good compression over the fracture site if the basic techniques of osteosynthesis are followed. This can be achieved from a volar or a dorsal approach in an open or percutaneous fashion. The technical demands of this surgical technique are commonly underestimated resulting in incorrect screw positioning, poor compression across the fracture, incorrect length of screws, proud screws and osteochondral defects. These iatrogenic errors can lead to substantial morbidity for the patient with subsequent non-union, secondary osteoarthritis and destructive revision surgery to remove and replace screws. This paper will use case studies to demonstrate common errors and revisit correct surgical technique.

TITLE **MOTEC WRIST REPLACEMENT: A RETROSPECTIVE REVIEW OF 16 CASES OVER 4 YEARS**

Author(s) **Dr M Solomons, Dr T Sluis Cremer**

The management of severe wrist arthropathy is currently evolving as patients demand a higher degree of function than that afforded by the traditional surgical methods. A stable, pain free joint with a near normal biomechanics and a good range of motion is the goal of arthroplasty and the same applies at the wrist. We present our experience of the Motec cementless modular total wrist. Sixteen patients were reviewed at a mean follow up of 19.2 months (9 - 50 months). Clinical assessment included DASH (Disabilities of the Arm, Shoulder and Hand), PRWE (Patient Rated Wrist Evaluation) and visual analogue pain score as well as range of motion. Radiographic evaluation was used to assess implant fixation. Failure was defined as a second surgical procedure either to revise the implant or convert to arthrodesis due to loosening, infection or ongoing pain. In our group we had no second surgical episodes and a high patient satisfaction.

Post operative range of motion was good. Although our cohort was small and the follow up period relatively short these interim results are positive.

TITLE **CASE REPORT: PERILUNATE DISLOCATION WITH AN INTACT SCAPHOLUNATE LIGAMENT**

Author(s) **Dr Thabiso Motlolisi, Dr Tatolo Sefeane**

Dislocations of the Scaphoid and lunate are rare. The literature over the past few decades has reflected a few cases with 2 fundamental differences, the one where the 2 bones dislocate as a unit and the divergent type. In 2011, Khalid et al found 19 cases in literature, 11 of which dislocated as a unit and 8 were the divergent type.

We are reporting on a case of a 28yr male who presented 6 weeks post injury with a painful swollen wrist. He sustained a closed dislocation of the scaphoid and lunate, which appeared divergent type on x-ray, after wrist was trapped by a door. On exploration, volar and dorsal approach, the scapholunate ligament was found to be intact Reduction was done and maintained with Kirschner's wires. Below elbow full POP was then applied.

At three months review, he had returned to work. On examination he had regained 70% of his grip strength.

Conclusion: This case highlights a rare presentation of perilunate dislocation where both the scaphoid and lunate dislocate as a unit and careful x-ray analysis is key.

TITLE **OUTCOME OF WOUND COVER IN DEGLOVING INJURIES OF THE HAND AT KENYATTA NATIONAL HOSPITAL , A TERTIARY KENYAN HOSPITAL IN NAIROBI.**

Author(s) **G. O. AFULO, AUDI TANGA**

INTRODUCTION: Degloving injuries of the hand is a very common finding in any incident of hand injury. The skin of the hand especially palmar skin is special and there is no other substitute. Use of split or full thickness skin graft are not ideal for covering hand wounds due to the danger of adhesions and contractures in the former and take failure in the latter. The role of vascularised flaps in covering both volar and dorsal wounds is time tested and viable. The purpose of this study is to emphasise the significance of use of radial forearm flaps in covering hand wounds.

DATA SOURCE: This is a hospital based prospective study in an orthopaedic ward in Kenyatta National Hospital.

SUBJECTS: Fifteen patients were selected over a six-month period between January 2014 to Feb 2014.

OUTCOME MEASURES: The inclusion criteria involved patients of all ages with degloving injuries of both the dorsum and palmar aspects of the hand. The patients were admitted and had Radial forearm flap and Groin flap.

RESULTS: Male : Female ratio is 3:1 , Age group was 20 -50 years.

SURGERIES PERFORMED	NUMBER	PERCENTAGE
Cleaning and Dressing	2	13
Terminalization	2	13
V-Y Advancement flap	2	13
Cross finger flap	2	13
Reverse cross finger flap	0	0
Thenar flap	2	13
Radial forearm flap	2	13
Groin flap	1	7

CONCLUSION: Degloving injuries of the hand requires skin cover which is flexible and easily accessible. Vascularised flaps are ideal for these defects. Surgeons handling hand injuries need to be familiar with the various flaps for ease of coverage of hand wounds.

Prizes and Awards

SASSH REGISTRAR PRIZE: **R3 500.00**

This award is available for the best paper read at the SASSH Congress by a registrar or junior consultant (i.e. within one year after qualification and/or registration).

SASSH THERAPIST PRIZE: **R2 500.00**

This prize is sponsored by SASSH and is presented for the best paper read at the SASSH Congress by a hand therapist (physio- or occupational therapist)

ISIDORE KAPLAN LITERARY AWARD: **R10 000.00**

This prize is sponsored by SASSH for the best publication by a registrar or consultant between 1 January and 31 December of the previous year.

STRATMED PRIZE FOR THE BEST RESEARCH PAPER

This prize is sponsored by STRATMED and awarded annually for the best research paper presented at the SASSH Congress.

The prize is open to all categories of currently paid-up members of SASSH. The value of this award includes the cost of all flights, accommodation and registration fees to the following year's FESSH (Federation of European Societies for Surgery of the Hand) Congress.

ORTHO-XACT BARRY O'KELLY MEMORIAL PRIZE

This prize is sponsored by MACROMED and awarded annually for the best original content paper presented at the SASSH Congress.

The prize is open to all categories of currently paid-up members of SASSH. The value of this award includes the cost of all flights, accommodation and registration fees to the following year's FESSH (Federation of European Societies for Surgery of the Hand) meeting.

AFFORDABLE MEDICAL ANNUAL AWARD: **R25 000.00**

This grant is sponsored by AFFORDABLE MEDICAL and awarded annually to a member of SASSH for accessing hand surgery expertise.

SASSH TRAVELING FELLOWSHIP IN HAND SURGERY: **R20 000.00**

A Travelling Fellowship has been created to enable a Senior Registrar/Junior Consultant to travel overseas to visit one or more centres of excellence in Hand Surgery.

ASSH BUNNELL TRAVELING FELLOWSHIP

The ASSH Bunnell Travelling Fellowship is awarded annually to any member of SASSH at registrar level. This will allow for complimentary registration to the annual ASSH meeting as well as visits to local hand centres.

Notes

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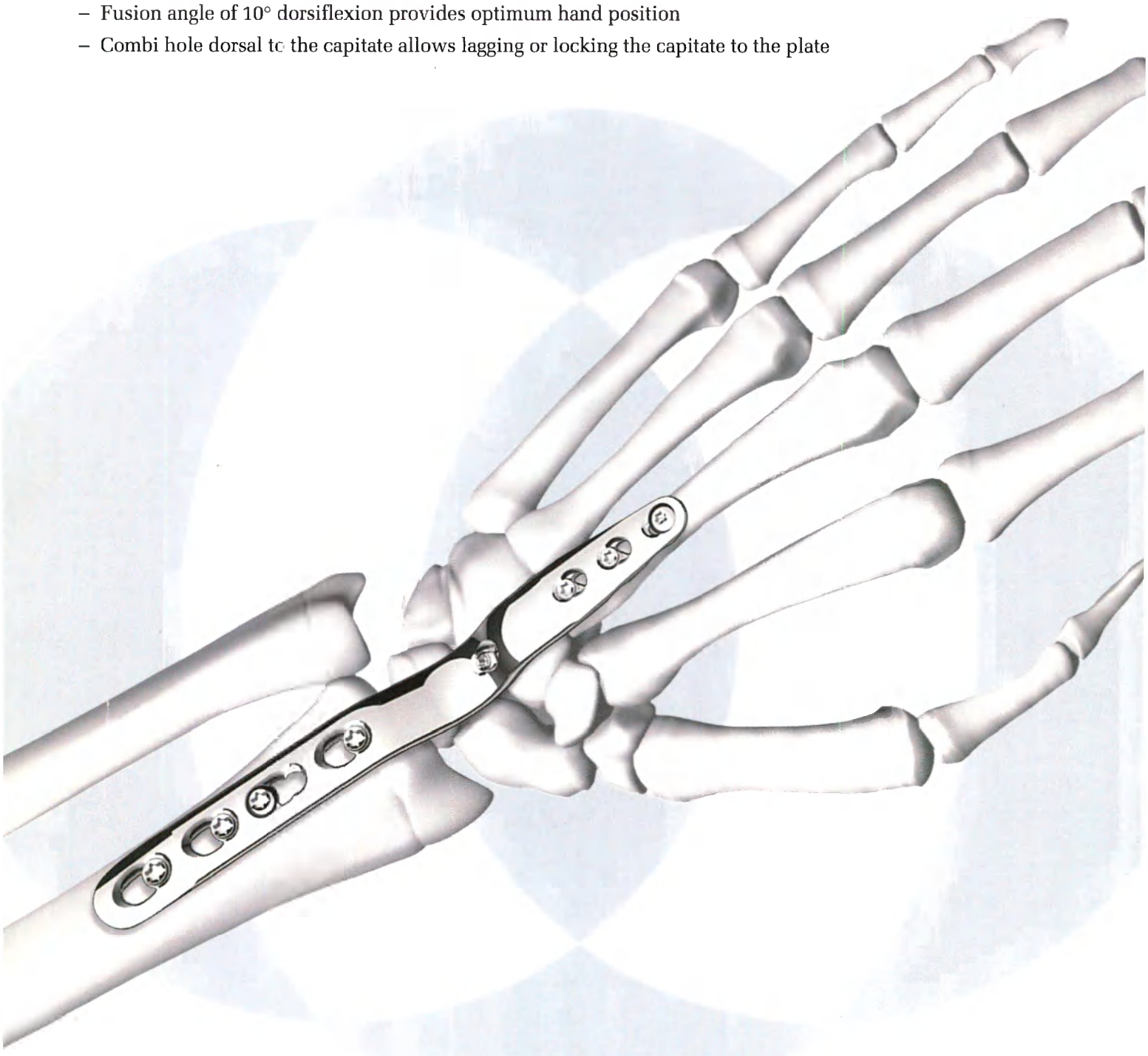

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