

**THE SOUTH AFRICAN  
SOCIETY FOR SURGERY  
OF THE HAND**

**40<sup>th</sup>**

**CONGRESS**

**CHAMPAGNE SPORTS RESORT  
CENTRAL DRAKENSBERG  
KWA-ZULU NATAL**

**28 – 30 AUGUST 2009**



**CONGRESS  
PROGRAM**



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# MESSAGE FROM THE PRESIDENT OF SASSH

## DR MARTIN WELLS

Welcome to the Drakensberg for our 40th Annual Congress. This 40th Annual Congress of the South African Society for Surgery of the Hand is a landmark in the history of the Society. It is a true celebration of what the founders of SASSH set out to achieve: an ongoing learning, researching, educating and sharing of Hand Surgery in South Africa.

Over the years we have hosted many great pioneers of international hand surgery at our congresses. We can truly claim to build our expertise by standing on the shoulders of giants of hand surgery. This 2009 year we are especially privileged to welcome Dr Francisco del Piñal from Santander, Spain as our keynote speaker and instructional course lecturer. He is brilliantly qualified to instruct us on Hand Trauma and useful new flaps for Hand Defects, Scaphoid Non-union Surgery, Reconstruction of the Mal-united Intra-articular Distal Radius Fractures and the special technique of Dry Arthroscopy of the Wrist.

Thank you to the trade for your generous support once again. Prof Theo Le Roux has organized an excellent academic program and coordinated our activities. Special thanks go to Hendrika van der Merwe who works nonstop to ensure a smooth congress and satisfied delegates.

Let us make the most of this time out together!



# MESSAGE FROM THE CONGRESS CHAIRMAN

## PROF THEO LE ROUX

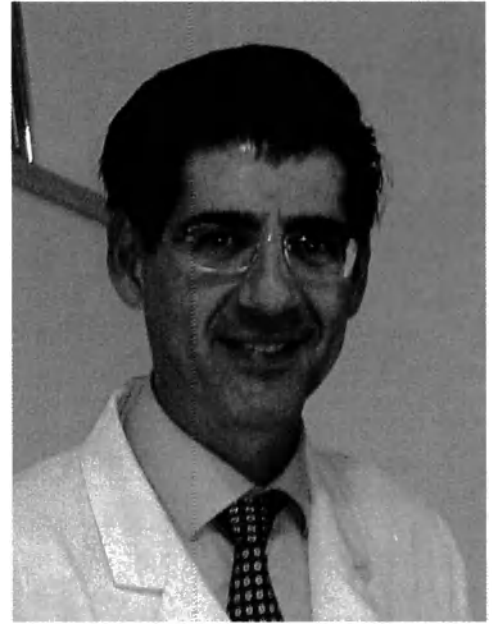
Welcome to Champagne Sports Resort in the beautiful Drakensberg Mountains. This will be a first for the Hand Society and it will be a perfect place to celebrate our 40th anniversary with the input from an excellent guest, Dr Francisco del Piñal. He is from Spain and has an impressive CV and lots of experience. We are going to change the program due to the venue and will have an early start on Friday and an early closure on Sunday. We will also have more interactive sessions with our guest, and will appreciate all input. Please enjoy the venue, the mountains, the socials and the networking.



# INTERNATIONAL VISITOR

## FRANCISCO DEL PINAL

Dr Francisco (Paco) del Piñal studied at the University of Madrid for his MD Degree and Dr Med degree. His Plastic Surgery training was in Madrid from 1983 to 1988. He did his Fellowship in Microsurgery with Ian Taylor (Melbourne) in 1989 and his Fellowship in Hand Surgery with the Kleinert Group (Louisville, Kentucky) in 1990. He is presently Head of the Institute for Hand-Wrist and Plastic Surgery, Private Practice and Hospital Mutua Montanesa, Santander, Spain. He is also President of the European Wrist Arthroscopy Society, Associate Editor of the Journal of Hand Surgery(European Volume) and member of the Editorial Board on The Scandinavian Journal of Surgery and the Journal of Hand and Microvascular Surgery. He has presented at national and international meetings on 315 occasions, and published 76 papers and chapters.



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<ul style="list-style-type: none"><li>• Congress Gift</li><li>• Stationery</li><li>• Name badges</li><li>• Banners</li></ul>	

The SASSH wishes to thank all trade delegates for their participation and their generous sponsorship



# GENERAL ANNOUNCEMENTS/ CONGRESS INFORMATION

## CPD REGISTER

- Discovery Health will handle the CPD formalities on a daily basis.
- You will receive notification 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

## 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

## TRADE EXHIBITORS

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

# 2009 CONGRESS ORGANIZING COMMITTEE

Congress Chairman  
Assisted by

Theo le Roux  
Evert Visser

Congress Coordinator

Hendrika van der Merwe

## SOCIAL EVENTS

**Welcome Cocktail Function**      Friday 28 August 2009  
17:00 – 18:00  
Sentinel Room (Trade exhibition area)  
Champagne Sports Resort  
Dress: Casual

**Congress Dinner**      Saturday 29 August 2009  
19:00 for 19:30  
Drakensberg Sun Hotel  
Dress: Smart Casual

## FUTURE EVENTS

### ANNUAL REFRESHER COURSES

2010	Topic	Nerve, Pain, BPI, Sudeck's, Tendon Transfers
	Date	26-28 February
	Venue	Cape Town
2011	Topic	Infections, Tumors, Rehabilitation
	Date	TBA
	Venue	Bloemfontein

### ANNUAL CONGRESSES

2010	41st Congress and Instructional Course
	Date      3-5 September
	Venue     TBA
2011	42nd Congress and Instructional Course
	Date      2-4 September
	Venue     TBA

# OFFICE BEARERS

President	MC Wells
Immediate Past President	TLB le Roux
Honorary Secretary/Treasurer	TLB le Roux
Members	M Carides M Solomons J van der Westhuizen
Executive Secretary/ Congress Coordinator	H van der Merwe
Office	✉ 2721, Bellville SA 7535 ☎ 021 9103322 📠 0866 720 426 📧 sassh@iafrica.com 💻 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



# AC BOONZAIR 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"



# ANNUAL GENERAL MEETING

**Saturday 29 August 2009**

**16:15 – 17:15**

**(Members only / Slegs Lede)**

**Ondini Room, Champagne Sports Resort**

**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 Executive Committee Members**

**Aankondiging van Uitvoerende Bestuurslede**

**9**

**Membership**

**Lidmaatskap**

**10**

**General**

**Algemeen**

**11**

**Next Annual General Meeting**

**Volgende Algemene Jaarvergadering**

# LCP Compact Hand and LCP Distal Radius System 2.4.

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# SCIENTIFIC PROGRAM

## FRIDAY 28 AUGUST 2009

13:00-13:45	Registration Venue: Sentinel Room, Champagne Sports Resort, Drakensberg	
13:50-14:00	Welcome and Announcements Venue: Ondini Room, Champagne Sports Resort, Drakensberg	<b>Martin Wells</b> <b>President: SASSH</b>

### SESSION ONE

#### CHAIRMAN: DR MARTIN WELLS

14:00-14:10	Operative Fixation in Fracture-Avulsion type Mallet Finger Injuries - A Modified Technique	<b><u>Fred Louw,</u></b> <b>M Solomons</b>
14:10-14:15	Discussion	
14:15-14:25	Traumatic Brachial Plexus Injuries – Johannesburg Experience	<b><u>Marshall Murdoch,</u></b> <b>W Erasmus,</b> <b>A Potgieter,</b> <b>G Wittstock</b>
14:25-14:30	Discussion	
14:30-14:40	Endobutton Repair of the Distal Biceps Tendon following Traumatic Rupture: A Case Series of 8 Patients	<b><u>Cameron Anley,</u></b> <b>S Pretorius,</b> <b>M Wells</b>
14:40-14:45	Discussion	
14:45-15:05	PIP Joint Malunion	<b>Francisco del Piñal</b>
15:05-15:10	Discussion	
15:10-15:40	<b>TEA</b>	
15:40-16:05	What is New in cute Distal Radius Malunions?	<b>Francisco del Piñal</b>
16:05-16:10	Discussion	
16:10-16:45	Case Studies – Problem Cases	<b>Francisco del Piñal</b>
17:00-18:00	<b>Welcome Cocktail Function in Sentinel Room</b>	
Free Evening		

# SATURDAY 29 AUGUST 2009

## SESSION TWO

**CHAIRMAN: DR JOHAN V D WESTHUIZEN**

08:00-08:10	Acute Hand Infections, Local Epidemiology	<b>Saadia Akoob, EA Christofides</b>
08:10-08:15	Discussion	
08:15-08:25	Dupuytren's Disease: The Z-factor	<b>Ulrich Mennen</b>
08:25-08:30	Discussion	
08:30-08:40	Ligament of Landsmeer: Anatomical Dissection	<b>Erich Mennen</b>
08:40-08:45	Discussion	
08:45-08:55	Prototype Development and Clinical Trials of a Novel Trapezium Implant to Treat Basal Joint OA	<b>Michael Solomons</b>
08:55-09:00	Discussion	
09:00-09:10	Osteoarthritic Hand Problems of South African Quilters	<b>Corrianne van Velze</b>
09:10-09:15	Discussion	
09:15-09:25	Outcomes of a Sequential Case Series: Pyrocarbon Proximal Interphalangeal Joint Arthroplasty	<b>Clive White, M Solomons, S Carter</b>
09:25-09:30	Discussion	
09:30-10:00	<b>TEA</b>	

## SESSION THREE

**CHAIRMAN: PROF THEO LE ROUX**

10:00-10:25	What is New in Distal Radius Mal-unions?	<b>Francisco del Piñal</b>
10:25-10:30	Discussion	
10:30-10:40	Competition: Influence on Rehabilitation Outcome	<b>Lynne Pringle</b>
10:40-10:45	Discussion	
10:45-11:20	Ulnar Impaction and Tears	<b>Francisco del Piñal</b>
11:20-11:30	Discussion	
11:30-11:40	"Marilyn Monroe" Flaps: An Attractive Option for Incomplete Syndactyly	<b>Nick Kairinos, S Carter</b>
11:40-11:45	Discussion	
11:45-11:55	Squamous Carcinoma of the Hand: Are you Sure?	<b>Michael Solomons</b>
11:55-12:00	Discussion	
12:00-12:10	The Correction of Pincer Nail Deformities using INTEGRA™ Dermal Regeneration Template: A Case Report and Literature Review	<b>Marshall Murdoch</b>
12:10-12:15	Discussion	
12:15-13:00	The AC Boonzaier Memorial Lecture: Standing on the Shoulders of Giants.	<b>Martin Wells</b>
13:00-14:00	<b>LUNCH</b>	



## SESSION FOUR

**CHAIRMAN: DR MICHAEL CARIDES**

14:00-14:10	Skin Hypopigmentation following Corticosteroid Injection for De Quervain's Tenosynovitis	<b>Graham McCollum, M Solomons</b>
14:10-14:15	Discussion	
14:15-14:25	Choices in Coverage of Soft Tissue Defects of the Hands: Use of Artificial Dermis vs Neurovascular Island Flaps	<b>Charles Furaha, M Murdoch, A Jenkin</b>
14:25-14:30	Discussion	
14:30-14:40	Minimal Access Carpal Tunnel Release	<b>SM Ridwan Mia, D Geoffreys, M Murdoch</b>
14:40-14:45	Discussion	
14:45-15:30	Clinical Cases	<b>Francisco del Piñal</b>
15:30-16:00	<b>TEA</b>	
16:15-17:15	<b>ANNUAL GENERAL MEETING (Members only)</b>	
19:00 for 19:30	<b>SASSH DINNER: Drakensberg Sun Hotel Dress: Smart Casual</b>	

## SUNDAY 30 AUGUST 2009

### SESSION FIVE

**CHAIRMAN: DR MICHAEL SOLOMONS**

09:00-09:30	Management of the Mutilated Hand	<b>Francisco del Piñal</b>
09:30-09:40	Discussion	
09:40-10:05	Free Flaps in Hand Injuries	<b>Francisco del Piñal</b>
10:05-10:15	Discussion	
10:15-10:45	<b>TEA</b>	
10:45-11:20	Advances in Thumb Reconstruction	<b>Francisco del Piñal</b>
11:20-11:30	Discussion	
11:30	Closure by New President	<b>Michael Solomons</b>

# ABSTRACT LIST

(Listed according to Scientific Program)

## **TITLE: OPERATIVE FIXATION IN FRACTURE-AVULSION TYPE MALLET FINGER INJURIES: A MODIFIED TECHNIQUE**

*AUTHOR(S): Fred Louw, (21 Ravensberg Avenue, Newlands 7700. Mobile 0834593707. e-mail: fredlouw@yahoo.com); MICHAEL SOLOMONS (UCT Hand Unit, Groote Schuur Hospital, Observatory)*

The management of Mallet Finger injuries remains controversial. Nowhere more so is this present in Doyle type IV B, C and rotated fracture-avulsion type Mallet Finger injuries i.e.

>20% joint surface involved

rotated fragment

persistent subluxation of DIPJ

Surgical fixation of the avulsed fragment is technically demanding and difficult. Numerous techniques have been described.

Some authors maintain K-wire fixation of the avulsed fragment is best. This method unfortunately carries the risk of infection and moreover intra-articular inf.

Other authors insist screw fixation is best. Here, however, there is the ever present risk of splitting the fragment.

We have developed a safe and simple surgical technique for fixation of the avulsed fragment. We intend to present our surgical technique and interim results of this surgical fixation.

## **TITLE: TRAUMATIC BRACHIAL PLEXUS INJURIES – THE JOHANNESBURG EXPERIENCE**

*AUTHOR(S): Marshall Murdoch, (Ward 494, Johannesburg Academic Hospital, Jubilee Road, Parktown 2193. Telephone 0833473191 or 011-7265163; email: marshall.murdoch@gmail.com); Willem Erasmus, Anton Potgieter and Craig Wittstock (Division of Plastic & Reconstructive Surgery, University of the Witwatersrand & Charlotte Maxeke Johannesburg Academic Hospital)*

**Introduction:** Brachial plexus injuries are devastating, both to the patients who sustain them and to the surgeons who treat them. The options for treatment have expanded and a number of controversies have emerged, many of which still await satisfactory conclusion. While there is generally a paucity of series with significant numbers, the majority of plexus injuries reported are of the closed high energy type. Our experience demonstrates a significant number of open plexus injuries – unusual for a civilian referral base.

**Methods:** A retrospective analysis of all brachial plexus injuries presenting to a single specialist unit since September 2007 was undertaken. Demographics, as well as the mechanism, level, timing, associated injuries, type of reconstruction and recovery were examined. We discuss our timing protocol and results specifically for early surgery in gunshot wounds of the plexus.

**Results:** 32 plexus injuries have been referred to our unit. There were 24 males and 8 females. The mean age was 25.7, the median age 27 and the range was from 8 months to 43 years. 10 Right and 22 left plexus injuries were seen. There were 21 open injuries (66%), with gunshot wounds making up 7 of these (22%). 6 Cases of root avulsion were noted, 5 cases the injury was within the roots, 5 at the level of trunks, 2 at the divisions, 6 at the level of the cords and 8 at the terminal branches. In 17 cases there was an associated injury, with vascular injury being the most common (10 cases). Reconstruction was undertaken in 24 cases, with the following options in declining order : nerve graft (10), neurolysis (9), nerve transfer (6), primary neurorraphy (5) and tendon transfer (2).

## Conclusion

We have accumulated a significant penetrating plexus trauma experience in a short time, due to social factors prevalent in Johannesburg at present. Specifically a sub-series of gunshot plexus injuries, usually only seen in combat situations, is unique. We believe that early plexus exploration with liberal use of nerve grafting offers the patients with these horrific injuries the optimal functional outcome.

## TITLE: ENDOBUTTON REPAIR OF THE DISTAL BICEPS TENDON FOLLOWING TRAUMATIC RUPTURE: A CASE SERIES OF 8 PATIENTS

AUTHOR(S): *Cameron Anley\** (3A Kleinschmidt Close, Paarl 7646. Telephone: 0837804332;

Email: [anley@cybersmart.co.za](mailto:anley@cybersmart.co.za)); Sean Pretorius; Martin Wells

**Aims of study:** Rupture of the distal tendon of the biceps muscle is an injury seen in middle-aged male patients. This injury commonly occurs in the dominant hand, when forced flexion occurs in the flexed position. A strong and anatomical repair is required to restore the important actions of supination and flexion of the forearm. Various methods of repair have been proposed including anchors, tunnelling of the tendon into the radial tuberoisty and endobuttons. The preferred method of repair remains widely debated in literature. The purpose of this case series is to present the results of 8 patients who underwent surgical repair of a distal biceps tendon repair via the endobutton method.

**Methods:** 8 Patients diagnosed with a distal rupture of the biceps tendon underwent repair using an endobutton. Post surgery the patients underwent rehabilitation and are being followed up to assess function.

**Results:** 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 an endobutton to repair a distal biceps tendon rupture is a safe and effective method; however this can only be confirmed once the final assessment has been done.

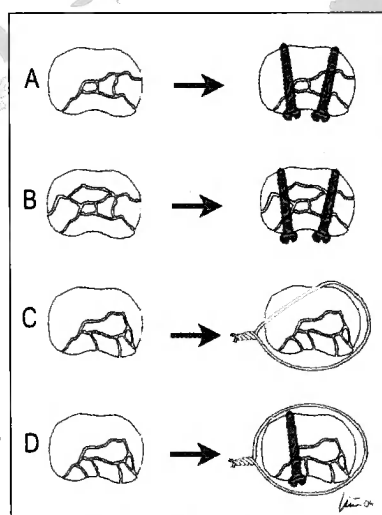
## TITLE: PIP JOINT MALUNION

AUTHOR(S): *Dr F del Piñal*

Private practice and Hospital Mutua Montañesa,  
Santander, Spain

email: [drpinal@drpinal.com](mailto:drpinal@drpinal.com)

Malunion around the PIP joint is not uncommonly seen. The main reason is for not asking appropriate AP and lateral radiograms. It is important to look for subtle signs on the radiograms, particularly in dorsal fracture dislocation. For condylar malunion the authors recommends osteotomy of the fragment, preserving the soft tissue connections and rigid fixation with bone grafting. Fracture dislocations are also commonly seen and for those a shot-gun approach, rigid fixation with cerclage wire or screws (depending on the size of the fragments) and bone grafting is recommended (see figure). Osteochondral losses are replaced by vascularized osteochondral grafts taken from the toes. Finally, for total losses we have had a positive experience by replacing the joint with the toe's PIP. In our experience good Rom is to be expected at the hand and the toe can still be preserved in place.



## References:

- del Piñal F et al. Vascularized bone blocks from the toe phalanx to solve complex intercalated defects in the fingers. J Hand Surg Am. 2006;31:1075-82.
- Del Piñal F et al. Results of osteotomy, open reduction, and internal fixation for late-presenting malunited intra-articular fractures of the base of the middle phalanx. J Hand Surg Am. 2005;30:1039.

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## TITLE: ARTHROSCOPIC MANAGEMENT OF DISTAL RADIUS FRACTURES:

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*AUTHOR(S): Dr F del Piñal*

Arthroscopy allows to see inside the joint the quality of the articular reduction, under ideal illumination and magnification. It is cumbersome particularly if water is used to maintain the optic cavity. It is imperative to follow the correct sequence in order to be able to modify the fixation should the need arise. We suggest the following: Preliminary volar locking plate application, reversible fixation (Kirschner-wires though the plate), arthroscopic (dry) tuning, and then stable (locking pegs) fixation under arthroscopic guidance.

We have operated more than 200 articular distal radius fractures under arthroscopic control. None of our cases were considered a failure nor did the arthroscopy have to be abandoned. In order to test the feasibility and outcome of the above protocol, we extracted a subgroup of the 16 consecutive most comminuted fractures. They all had "explosion fractures": more than five articular fragments and/or a free osteochondral fragment. At a minimum of two years they were called back for the purpose of this study. Except in one case where the extra-articular reduction was lost, in the rest, the radiographic parameters were satisfactorily maintained. Range of motion was 105 ° of flexion-extension; Grip strength was 85% of the contralateral, and a DASH of 6. This study confirms that (dry) arthroscopy is feasible in the most severely articular comminuted C3 fractures, and our results compare favorably with other similar case series. In a more recent case, out of the study group, one patient suffered collapse of the lunate fossa and required radio-lunate arthrodesis.

- 1: Del Piñal F. Dry arthroscopy of the wrist: its role in the management of articular distal radius fractures. Scand J Surg. 2008;97(4):298-304.
- 2: Del Piñal F et al. Dry arthroscopy of the wrist: surgical technique. J Hand Surg Am. 20;32:119.
- 3: Del Piñal F et al Explosion type articular distal radius fractures. Presented at the FESSH meeting in Poznan. 2009.

---

## TITLE : ACUTE HAND INFECTIONS, LOCAL EPIDEMIOLOGY

---

*AUTHOR(S): Saadia Akoob (No. 4 Catalunya, Albertyn Street, Kyalami Hills 1686; Telephone 0826124944; Email: saadiaakoob@gmail.com); E A Christofides (Dept of Plastic & Reconstructive Surgery, Wits)*

**Introduction:** Hand infections remain a significant cause of morbidity.

Treatment regimens still include traditional use of penicillin and cloxacillin in combination, however there is no recent literature to support this. Current guidelines are based on studies that do not fully represent local epidemiology.

**Aims:** To evaluate the bacteriological spectrum of hand sepsis in a local setting.

Identify hand infections prone to complications, thus resulting in higher relook sepsis rates, and propose a treatment protocol for empiric treatment for hand infections based on current bacteriological spectrums.

**Methods:** A prospective study evaluating results of all patients admitted since October 2008 - October 2009 presenting with hand sepsis in a single specialist unit.

Bacteriologic studies were based on tissue cultures taken at initial surgical debridement.

Antibiotics are adjusted accordingly during the treatment period based on culture results.

Hand therapy is employed in all patients.

Complications included those patients that required further treatment after definitive discharge from the unit.



**Results:** Majority of patients cultured gram positive organisms, specifically streptococcus and staphylococcus. No yeast infections were identified in any of the cultures. Some cultures showed multiple organisms and those affected had a more aggressive course. Some infections necessitated amputation of the limb. Actual results and bacteriology to be presented at congress.

**Conclusion:** Hand infections still remain surgical emergencies that require prompt management. Early debridement and appropriate antibiotics remain the mainstay of treatment. Some infections are prone to complications despite adequate management. Delayed presentation an important factor in outcome.

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#### **TITLE: DUPUYTREN'S DISEASE : THE Z-FACTOR**

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*AUTHOR(S): Ulrich Mennen (374 Lawley St, Waterkloof, Pretoria, 0181; Telephone 012 4216739; Email: mennen@icor.co.za)*

An outcome based survey was done on 426 Dupuytren's Diseased (DD) hands operated on over a 15 year period (1992-2007) with a follow-up of 2-17 years. Recurrences of DD was 3.7 % (literature 26-63%) , extensions was 4.8% (literature 20-60%) and the VAS patient satisfaction was 9.2. We conclude that the excellent results are due to a meticulous surgical technique , and especially due to the Z-factor ie. multiple subsequent Z-plasties.

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#### **TITLE: LIGAMENT OF LANDSMEER : ANATOMICAL DISSECTION**

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*AUTHOR(S): Erich M Mennen (Telephone 012-3674296; Email: ericmennen@mweb.co.za)*

An anatomic dissection of the oblique retinacular ligament hopes to shed some light on this important structure. In conjunction with the Department of Anatomy, University of Pretoria, cadaver hands are dissected in order to establish the exact location and anatomic relevance of the so called Landsmeer ligament. The role of this ligament in coordinating finger flexion, the development of fixed Boutonniere deformity and the mechanism of injury in mallet fingers will be studied.

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#### **TITLE: PROTOTYPE DEVELOPMENT AND CLINICAL TRIALS OF A NOVEL TRAPEZIUM IMPLANT TO TREAT BASAL JOINT OA**

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*AUTHOR(S): Michael Solomons (Suite 128, Vincent Pallotti Hospital, Alexandra Road, Pinelands 7405. Telephone 021-5313621. Email docsol@absamail.co.za)*

Excision arthroplasty of the trapezium with or without ligament stabilisation is a successful operation with high patient satisfaction and more than 90% good and excellent results at 6 months. Most patients complain about the prolonged immobilisation period and the recovery time. CMC replacements include silicone interpositions and total joint replacements. Silicone is complicated by particulate synovitis and both are complicated by dislocation and instability. The design and development of a novel non-dislocatable prosthesis will be discussed. With Ethics Board approval a clinical trial was planned and executed. 16 implants were inserted into the basal joints of 16 patients with OA. At a minimum of 1 year follow up 4 implants have been removed due to persistent pain. The other 12 are still in situ and are functioning adequately.

A 75% success rate does not offer enough benefit to the basal joint OA patient to warrant replacing the excision arthroplasty procedure.

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**TITLE: OSTEOARTHRITIC HAND PROBLEMS OF SOUTH AFRICAN QUILTERS**

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*AUTHOR(S): Corrienne van Velze (PO Box 846, Groenkloof 0027; Telephone 012-3462700; Email vanvelze@iafrica.com)*

**Background:** Every two years the SA Quilters Guild presents a week long national festival in South Africa. Quilting is an activity, which relies on good bilateral hand function, not only during the actual sewing, but also when cutting fabrics. As most quilters are ladies over 40 years, many have problems with their hands, which cause pain and discomfort.

**Method:** At the 2008 festival, members of the Gauteng branch of the SASHT manned a hand therapy booth and assessed the hands of all interested quilters. Not only were the hands assessed, quilters were also given advice on how to care for their hands, exercise sheets were handed out and in some instances splints were manufactured. Many quilters were referred to specialists in their own region.

A survey was conducted to determine the most common hand problems among the visitors to the booth.

**Results:** A total of 136 quilters (14%) were assessed. Their ages ranged from 20 to over 70 years. The average number of years that they had been sewing was 14 years.

The most common problems among quilters were painful thumbs, followed by painful and stiff IP joints, carpal tunnel syndrome and De Quervain's disease. Interesting relationships between hand dominance, type of sewing and fabric preparation emerged.

The implications of this survey for hand therapists and hand surgeons will be discussed.

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**TITLE: OUTCOMES OF A SEQUENTIAL CASE SERIES: PYROCARBON PROXIMAL INTERPHALANGEAL JOINT ARTHROPLASTY**

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*AUTHOR(S): Clive D White, (Dept. of Orthopaedics, H49 Old Main Building, Groota Schuur Hospital, Observatory; Telephone : 078 3321421; Email cdwhiteza@hotmail.com) MW Solomons, SL Carter*

We have retrospectively reviewed two surgeons experience over seven years of pyrocarbon proximal interphalangeal joint arthroplasty.

From a surgical database indications for surgery, pre- and post-operative range of movement were reviewed. Surgical and post-operative complications were also assessed including the need for revision surgery.

Forty eight (48) implants were inserted in thirty six (36) patients. At a minimum follow-up of 6 months all patient's outcomes have been assessed and the results will be presented.

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**TITLE: WHAT IS NEW IN DISTAL RADIUS MALUNIONS**

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*AUTHOR(S): Dr F del Piñal*

**Three topics will be discussed:**

1. Recognition and treatment of "Sagittal plane malunion in extraarticular radius fractures. The importance of using appropriate landmarks when measuring in the Xray will be stressed. This deformity is very simply recognized in lateral radiogram by the presence of a hinge point where the radius rotates.
2. Intra-articular malunion treated under arthroscopic guidance.
3. The use of vascularized osteochondral grafts taken from the metatarsal in order to restore the radius surface in cases where the cartilage of the radius is irreversible damaged.

Some cases about new directions will be presented.

- 1: Del Piñal F et al Sagittal rotational malunions of the distal radius: the role of pure derotational osteotomy. J Hand Surg Eur 2009;34:160-5.
- 2: Del Piñal F, et al. Correction of malunited intra-articular distal radius fractures with an inside-out osteotomy technique. J Hand Surg Am. 2006;31:1029-34.
- 3: Del Piñal F et al Reconstruction of the distal radius facet by a free vascularized osteochondral autograft: anatomic study and report of a patient. J Hand Surg Am. 2005;30:1200-10.

## **TITLE: COMPETITION: INFLUENCE ON REHABILITATION OUTCOME**

*AUTHOR(S): Lynne Pringle (PO Box 30786, Tokai 7966. Telephone 0827845979. Email lpringle@iafrica.com)*

The aim of this study: to determine whether or not the element of competition has an influence on the outcome of Hand therapy rehabilitation, specifically motivation. Patients were randomly divided into 2 different groups. Range of motion in a percentage was displayed on a wall chart, and a weekly winner was announced.

In order to attempt to minimise the element of extra attention when involved in the competition, half of the control group and half of the study group received an exercise 'gadget'.

The results will show how competition influences rehabilitation outcome in a positive manner. Availability of an exercise tool or 'gadget' further enhances patient compliance, and ultimate functional outcome.

## **TITLE: ULNAR IMPACTION AND TEARS**

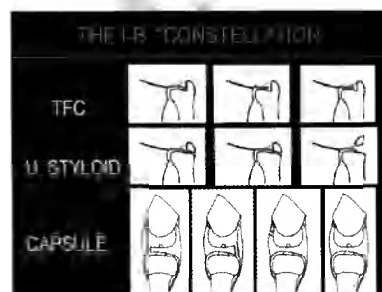
*AUTHOR(S): Dr F del Piñal*

Palmer classified TFCC lesions into degenerative and traumatic tears. Although the most common impaction form is the one where the head ulna impinges on the lunate, impaction of the tip of the ulnar styloid against the dorsal aspect of the triquetrum is also a frequent cause of ulnar pain. Occasionally, both can impinge in the same patient. Arthroscopic treatment will be discussed.

The most interesting traumatic tear is the so-called 1B. Including in this group there were patients that had distal radio-ulnar joint instability. This group, however, was not sufficient to explain all the causes of traumatic ulnar pain where the TFC is involved.

In our view the traumatic ulnar tears (1B), represents a "constellation" of diseases where the capsule, the triangular fibrocartilage and the ulnar styloid interplay. All of them should be considered and addressed when dealing with pain, impingement and instability of the distal radio-ulnar joint. A classification is proposed to unravel this complex interplay, in order to help managing these disorders. (see Figure 1) Additionally, new types of tears, such as the coronal tear (Piñal-Nakamura) and Horizontal (mid-substance) tears will also be presented.

1. Del Piñal F et al and Nakamura. Coronal tears of the TFC. Presented at the FESSH meeting in Poznan. 2009.
2. Del Piñal F. The I-B constellation. Presented at the FESSH meeting in Poznan. 2009.
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## **TITLE: "MARILYN MONROE" FLAPS – AN ATTRACTIVE OPTION FOR INCOMPLETE SYNDACTYLY**

*AUTHOR(S): Nick Kairinos (Martin Singer Hand Unit, Groote Schuur Hospital, Main Rd, Observatory, Cape Town 7925; Telephone 0728063395; Email nickykairinos@gmail.com); S Carter Red Cross, Congenital Hand Unit, Cape Town*

**Aim:** To introduce a novel technique for separating incomplete syndactyly, without the need for skin grafting. A pilot study to assess the technique's outcome is undertaken.

**Methods:** The described new technique using dorsal rotation flaps is undertaken on five patients undergoing incomplete syndactyly release, who would otherwise have required full thickness skin grafting (FTSG). Benefits and potential and actual complications are described.

**Results:** All patients had results equal to or better than skin grafting, particularly with regards to colour matching and scarring. Operative time was reduced and patient satisfaction was improved.

**Conclusion:** The "Marilyn Monroe" flaps in this pilot study appear to be a more attractive alternative to FTSG for incomplete syndactyly release. Advantages include a better colour match, absence of a donor site scar and a reduction in theatre time. Long term studies may demonstrate less webspace creep, improved scarring and a more aesthetically pleasing result.

## **TITLE: SQUAMOUS CARCINOMA OF THE HAND. ARE YOU SURE?**

*AUTHOR(S): Michael Solomons*

Two cases presented with raised aggressive looking lesions on the dorsum of the hand. Clinically these were almost definitely keratoacanthomas (KA) despite histopathology reporting squamous CA. A decision was made to perform intralesional curettage. Complete resolution ensued.

The two conditions will be discussed with clinical tips on how to differentiate.

## **TITLE: THE CORRECTION OF PINCER NAIL DEFORMITY USING INTEGRA™ DERMAL REGENERATION TEMPLATE : A CASE REPORT AND LITERATURE REVIEW**

*AUTHOR(S): Marshall Murdoch. Division of Plastic & Reconstructive Surgery, University of the Witwatersrand & Wits Donald Gordon Medical Centre.*

**Introduction:** Pincer nail, or trumpet nail, is an uncommon acquired deformity characterized by a nail which is excessively curved in the transverse dimension, with deep paronychia recesses. The aetiology is usually idiopathic, but a variety of local and systemic disorders may present with the deformity. Both conservative and various surgical approaches have been described, however lasting correction is only obtained by surgical means.

**Methods:** A patient with bilateral pincer nails of the great and second toes is presented. Under metatarsal block and sedation, the nailplate of each great toe was removed. 6mm Incisions, perpendicular to the paronychia fold were made proximally and distally. The paronychia recess was dissected free from the underlying phalanx in a supra-periosteal plane with a Freer elevator and scissor dissection, connecting the two incisions. A 5x5 cm piece of single layer Integra™ was hydrated, cut to the appropriate length and double folded (making a 4 layer contour graft). The contour graft was inset with a fine haemostat, filling the dead space. Immediate improvement in the position of the paronychia recess was noted. The graft was fixed proximally and distally with 5/0 vicryl rapid sutures. The deformed nailplate was discarded and a silastic sheet was anchored to the proximal nailfold as a spacer. The second toes underwent limited paronychia fold wedge resection.

**Results:** A 5x5 cm piece of Integra was sufficient for the correction of 4 paronychia folds (2 toes). Good correction of the deformity was noted and the patient was satisfied with the result.



**Conclusion:** This is the first description of the use of Integra™ for the correction of pincer nail deformity. The product is readily available in South Africa and the cost compares more favourably than similar competitors. The ease of use of this product in association with the absence of a donor site, make this an ideal choice of material for the correction of this difficult deformity.

#### **TITLE: SKIN HYPOPIGMENTATION FOLLOWING CORTICOSTEROID INJECTION FOR DE QUERVAINS TENOSYNOVITIS**

---

*AUTHOR(S): Graham A McCollum (2 Silverhill, Escombe Rd, Vredehoek 8001; Telephone 0722777043; Email grahammac@discoverymail.co.za); M SOLOMONS*

**Aim:** Skin hypo pigmentation following the use of musculoskeletal corticosteroid has been described but is thought to be relatively uncommon.

Twelve cases of hypo pigmentation of the skin following corticosteroid injection for De Quervains tenosynovitis were identified at our institution.

Injections were performed between February 2008 and March 2009. The study sought to identify causative and contributory reasons for the high incidence.

**Methods:** The twelve cases of atrophic skin hypo pigmentation were identified and reviewed.

**Results:** All of the injections were performed by registrars in the department. Five of the twelve were injected by one particular registrar.

Seven of the twelve developed the lesion after the first injection, four after the second injection and one after the third injection.

Ten of the patients were of 'mixed' or coloured race and two were 'black' individuals.

Nine of the patients were postmenopausal women and we had no men in the cohort.

Eight patients were concerned by the appearance of the lesion and four were indifferent.

Only two of the twelve had re-pigmented at follow up but they were injected ten and twelve months prior to resolution.

**Conclusion:** Injection technique was a significant contributor. The time to resolution can be long and It appears that only one injection is commonly enough to cause the lesion.

Postmenopausal woman were most at risk. Possibly due to thinning of the dermis.

Patients should be counselled prior to the procedure especially people of coloured or black race.

Further follow up will determine the natural history of the lesion.

#### **TITLE: CHOICES IN COVERAGE OF SOFT TISSUE DEFECTS OF THE HANDS – USE OF ARTIFICIAL DERMIS VS NEUROVASCULAR ISLAND FLAPS**

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*AUTHOR(S): Charles Furaha (Room 9M17, Medical School Building, University of the Witwatersrand, 7 York Road, Parktown 2193; Telephone (011) 488 – 3494 or (011) 717 – 2181; Email: cfurahac@yahoo.fr); Marshall Murdoch and Aimée Jenkin. Division of Plastic & Reconstructive Surgery, University of the Witwatersrand & Charlotte Maxeke Johannesburg Academic Hospital*

**Introduction:** Defects of the hand and fingers can present reconstructive challenges. Finding adequate and reliable coverage, while trying to minimise donor site morbidities, is even more challenging. Recently, the use of Integra™, a dermal regeneration template of bovine origin, has been suggested for the coverage of hand defects, where flaps would previously have been utilized.

**Methods:** During the last 6 months, we have actively sought to minimise donor site morbidities in covering different types of soft tissue defects of the hand using Integra™ and subsequent split thickness skin graft, whenever it was deemed to be a possible reconstructive option. The double layer template is inset and allowed to vascularise. This is followed by removal of the silicone sheet and ultra-thin split thick skin graft placement 3 weeks later. We present and compare our experience and outcomes utilizing the dermal regeneration template and more traditionally accepted flap options.

**Results:** Using Integra™ for volar soft tissue defects gave us unreliable cover in terms of durability, bulk and cosmesis. In contrast, coverage of dorsum of hand and wrist with Integra™ has given us pleasing results in terms of durability, suppleness, adequate thickness and cosmesis compared to usual flaps. Coverage of finger tip amputations with Integra™ has been particularly disappointing and we have abandoned its use for this purpose. Presently, whenever a defect involves the tip of a finger, our first choice is a homodigital neurovascular island flap (HNVI). These flaps not only helped us preserve stump lengths but also provided a reliable sensate flap with excellent cosmesis.

**Conclusion:** Integra™ or similar products are an excellent reconstructive alternative in covering defects of the dorsum of hand and wrist. Volar defects however, are better covered with flaps to provide durability, bulk and sensation.

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#### **TITLE: MINIMAL ACCESS CARPAL TUNNEL RELEASE**

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*AUTHOR(S): SM Ridwan Mia (Ward 494, Johannesburg Academic Hospital, Jubilee Road, Parktown 2193 Telephone (011) 488 3494 OR (011) 717 2181; Email smrmia@yahoo.com); Dale Geoffreys and Marshall Murdoch (Division of Plastic & Reconstructive Surgery, University of the Witwatersrand & Charlotte Maxeke Johannesburg Academic Hospital)*

**Introduction:** Release of the transverse carpal ligament for carpal tunnel syndrome is regularly performed. The standard access incision involves a palmar incision, crossing the volar wrist crease and extending along the volar wrist skin for a variable distance. Smaller access incisions have been described in an attempt to improve scarring, pillar pain and return to activities of daily living.

**Methods:** We review of a group of patients that had a limited access carpal tunnel release over two years with a similar patient group that had the standard procedure undertaken during the same period. The Boston Pain Scale, the presence of pillar pain post-operatively and the resulting scars were compared. The minimal access incision is 2-3cm long, just ulnar to a line connecting the 3rd intermetacarpal space and the ulnar border of the Palmaris tendon. It affords visualisation of the transverse carpal ligament as well as access to the distal 1.5cm of the antebrachial fascia which is routinely divided. The wound is closed in 2 layers with 5/0 monocryl subcuticular sutures and adhesive tape dressing. No drain is used.

**Results:** All patients did well. There were no instances of damage to the palmar cutaneous nerve. There were no significant wound healing problems, however one patient developed a suture granuloma around the monocryl suture. Post-operative pain, stiffness, parasthaesia and the accompanying movement restriction was improved in the limited access group.

**Conclusion:** There was a difference in the minimal access incision patients compared to the control group with regard to post operative pain levels, wound tenderness, long term sensory loss, ability to perform daily activity and overall satisfaction levels. The results of the Boston scale questionnaire were compared to illustrate the benefit of the minimal access incision.

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#### **TITLE: MANAGEMENT OF THE MUTILATED HAND**

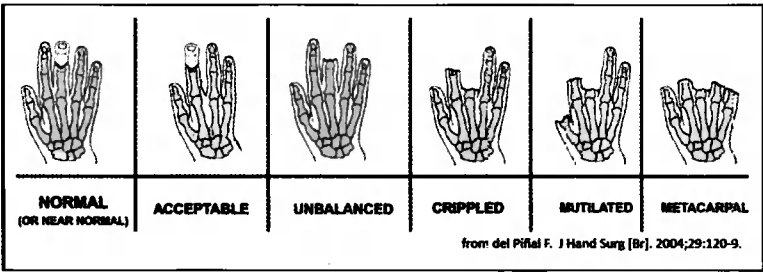
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*AUTHOR(S): Dr F del Piñal*

Toe to hand transfer has become a safe operation and the indications have widened considerably in the last few years. From a personal experience of 240 cases (success rate 98.5%) we have developed several tips and techniques in order to improve the cosmetic and functional outcomes.

The rationale to indicate a second toe in different modalities of finger amputations is discussed. Basically in our hands any finger where the PIP joint is preserved can be a candidate to have a toe transfer. This concept is important as in our hands toes do not move much and are much shorter than the fingers (fig 1). The goal to be sought in major injuries is always the 'acceptable hand' (one with three fingers, with near normal length, near normal

sensation and a functioning thumb). This concept is very important and it is hoped it will help in decision making process in primary care. In more severe injuries the goal is a tripod pinch.



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**TITLE: FREE FLAPS IN HAND INJURIES**

*AUTHOR(S): Dr F del Piñal*

Free flaps offer an ideal alternative to cover hand defects as they allow bringing first class vascularized tissue and nearly a perfect match, without additional damage in the recipient side. The importance of debridement and the concept of complex wound are discussed. A complex wound is one where there is exposure of bone devoid of periosteum, tendon lacking peritenon, vessels without adventitia and nerves without protection, or involves a skin fold, or a joint. To avoid the need of harvesting unnecessarily large flaps and minimize the donor site morbidity one has to understand that no matter how large a wound can be, the flap is only need in its complex part, the rest can be skin-grafted. The use of specialized tissue such as periosteum will also be discussed.

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**TITLE: ADVANCES IN THUMB RECONSTRUCTION**

*AUTHOR(S): Dr F del Piñal*

The advances since the pioneer work of Cobbett and Buncke in thumb reconstruction have been enormous. I will discuss the following: The importance of rigid skeletal fixation, management of intercalary defects with vascularized bone, and also the indications of mini-toe transfer briefly. Thenar damage has been divided in stages and a comprehensive classification developed, in order to clarify the indication of tendon transfers and/or functioning muscle transfer (apart from the toe transfer itself). How to prevent irreversible thenar damage is also discussed, as caused by occult compartment syndromes, and

underlined that typically patients with compartment syndrome at the hand do not have pain. Finally, some hints on strategy at the time of reconstruction and how to minimize the donor site deformity are presented.

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# SA SOCIETY FOR SURGERY OF THE HAND

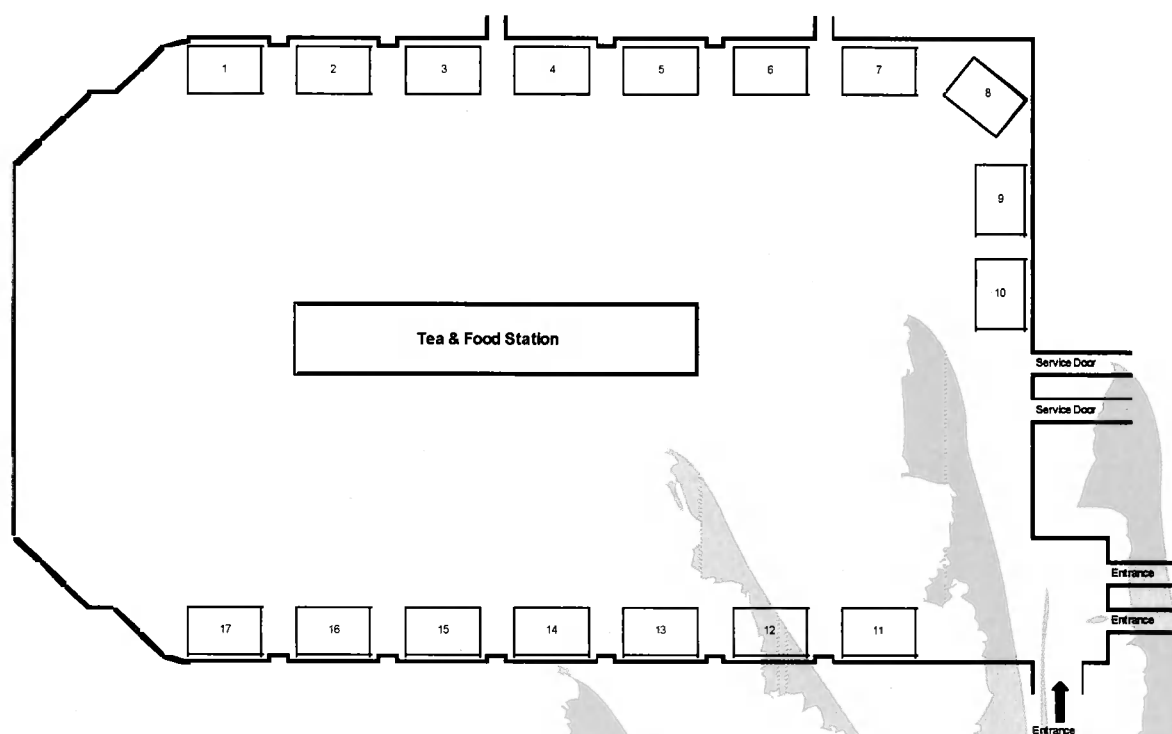
40<sup>th</sup> ANNUAL CONGRESS

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## A faint, stylized illustration of a hand with fingers spread, appearing as a watermark or background graphic on the left side of the page. The hand is rendered in a light gray or blue tone, with the fingers pointing upwards and slightly to the right. The style is minimalist and modern, with clean lines and no shading.

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