

# 32<sup>nd</sup> ISSH Annual Meeting March 13<sup>th</sup> 2022

David Inter-Continental Hotel, Tel Aviv

07:30 – 08:25 Registration

08:25 – 08:30 **Opening Remarks** – Shai Luria, Chairman ISSH, Paul Sagiv, Congress chair

## **Session I: Chairpersons: Yona Yaniv, Dalit Shefer Eini**

08:30 – 10:30 Invited Speakers

08:30 **Tissue Engineering**

**Simon Farnebo**

Professor of Hand Surgery, Senior Consultant in Hand Surgery, Chair Research Committee FESSH  
Dep of Hand Surgery and Plastic Surgery, Linköping University Hospital, Sweden  
Head of FESSH Research Committee

08:50 **Medical Treatment of Rheumatoid Arthritis 2022**

**Hagit Peleg**

Department of Medicine, Hadassah Medical Center, Jerusalem

09:10 **Rheumatoid Arthritis Surgery in 2022**

**Eitan Melamed**

Associate Professor of Orthopedic Surgery & Plastic Surgery, Icahn School of Medicine at Mount Sinai  
Chief of Hand Surgery, Elmhurst Hospital Center

09:30 **SARAH - Training for the Rheumatoid Hand, now in Israel**

**Naama Siegelman-Talman**

Nekuda Optimit - Occupational Therapy Clinic, Netanya Maccabi Health Services, Ashkelon

09:50 **Hand and Finger Splints in Arthritis**

**Masha Pinsky**

JewelSplint – Medical Ring Splints, Occupational Therapy Clinic, Maccabi Health Services

10:00 **Checkpoint Electrical Stimulation – Intraoperative Decision Making**

**Madi El Haj.**

Orthopedics, Hadassah Hebrew University Medical Center, Israel

**10:20 – 10:50 Coffee Break, Exhibition visit**

10:50 - 11:30 **Round Table - Flexor Tendon Injury and Treatment**

**Moderator - Franck Atlan, Tel Aviv Medical Center**

Simon Farnebo, Linköping University Hospital, Sweden

Stephane Romano, Orthopedic and Plastic Surgery, American Hospital of Paris, France

Eitan Melamed, Orthopedic & Plastic Surgery, Icahn School of Medicine at Mount Sinai, USA

Michael Chernofsky, Hadassah MC

Sorin Daniel Iordache, Beilinson MC

Danit Langer, School of Occupational Therapy, Hebrew University

## **Session II: Chairpersons: Sorin D. Iordache, Ayala Nota**

11:30 – 13:10 Free Papers [presentation: 6 min, discussion 4 min]

11:30 **The (modified) modified Brunelli technique for digital flexor tendon repair, with very early active mobilization rehabilitation protocol**

**Haber R, Dreyfuss D, Hutt D**

Hand & Microsurgery Unit, Rambam Healthcare Campus

**Objectives:** We present our modified surgical technique for Brunelli volar pullout button repair of digital flexor tendons<sup>i</sup>, and demonstrate the safety and efficacy of using a very early aggressive postoperative active motion protocol.

**Methods:** A retrospective analysis was performed on all patients for whom we performed zone I or II flexor tendon repair with the modified Brunelli technique and our own modifications (additional core suture and double-needle technique). Complex finger injuries were excluded. Associated injuries, rehabilitation protocol and complications were recorded. Functional outcome was included when available. For appropriate patients, our very early active motion protocol was used.

**Results:** Over 15 months, 66 patients were treated with this technique. After exclusions, 51 patients were included. 44 patients (ages ranging 14-70) were referred for very early active mobilization. There was one incident of tendon rupture 1 month post-op (patient who removed button after 2 weeks), and 1 late re-rupture (3 months post-op). There were 2 cases of superficial infection, with one requiring debridement. 1 patient was lost to follow-up after button removal. Out of the patients who underwent very early active therapy and were available for review (including 3 FPL repairs) results were as follows: 62% (n=27) excellent, 16% (n=7) good, 7% (n=3) moderate, 7% (n=3) poor, and 7% (n=3) required additional surgery (re-repair or teno/arthrolysis).

**Conclusions:** This technique affords an exceptionally strong tendon repair, which in turn allows the therapist to perform a very aggressive rehabilitation protocol with confidence. Preliminary results have shown a low complication rate, with no early ruptures in compliant patients, and encouraging functional results. This series is limited by being a retrospective cohort, and lack of grip strength testing. Further research will include a prospective cohort study with quantitative functional outcomes at set time periods, including grip strength testing and functional assessment questionnaires.

<sup>1</sup> Giorgescu VG, Matei IR, Olariu MS. Zone II Flexor Tendon Repair by Modified Brunelli Pullout Technique and Very Early Active Mobilization. Journal of Hand Surgery 2019; 44(9): P804.e1-804.e6

## 11:40 The Rambam protocol for very early active mobilization after flexor tendon repair by modified Brunelli pullout technique

<sup>1</sup>Zelig Gutkind S., <sup>2</sup>Dreyfuss D., <sup>1</sup>Iofe M., Ashkar S., <sup>1</sup>Alagem N., <sup>2</sup>Hutt D.  
<sup>1</sup>Occupational Therapy, <sup>2</sup>Hand and Microsurgery Unit, Rambam Health Care Campus

Rehabilitation following digital flexor tendon repair requires mobilization of the fingers to reduce adhesion rate, while attempting to avoid over-exertion which may result in tendon rupture. A recently described technique of robust flexor tendon repair using a volar pullout button, allows aggressive mobility protocols while ensuring integrity of the repair. We describe the Rambam protocol for very early active mobilization which was developed in collaboration between the Occupational Therapy Department and Hand and Microsurgery Unit.

This protocol has been in use in our hospital since October 2020, and was introduced to the Occupational Therapists from the community health services in northern Israel, to promote and ensure therapeutic sequence.

We present live examples from our patients' clinical results and delineate key improvements to the protocol based on our experience from the past year.

Very early active mobilization following repair by modified Brunelli pullout technique is now our preferred method of rehabilitation, for patients with ruptures of the flexor digitorum profundus or flexor pollicis longus tendons, according to our experience.

(A separate presentation will detail the surgical technique for modified Brunelli volar pullout tendon repair).



מרכז רפואי רמב"ם

רפי בנימין

10.2020 Brunelli pullout שיטת מוקדמות לאחר תפירת גידים מכופפים לפי שיטת Brunelli pullout

הערות	צורת הפעלה	מנח הסד	
<ul style="list-style-type: none"> <li>מתאים למסופלים שעבר תפירה חזקה לפי שיטת Brunelli pullout (כפתור בכרית האצבע) - רק לפי הוראת רופא.</li> <li>בזרת - ביום הראשון, כיפוף אל מול שלוש אצבעות היד השנייה (כבר לאחר שבוע, הגעה לטווח קמיצת אגרוף מלאה).</li> <li>מתן חשיבות להגעה לטווח תנועה פאסיבי טוב לפני אקטיבי.</li> <li>מתן חשיבות להורדת נפוחות וריכוך רקמה רכה לפני הפעלה אקטיבית.</li> <li>להתחיל בסיוע עם הפעלה פסיבית ולאחריה אקטיבית.</li> <li>אין להשתמש ביד לתפקודי יומיום.</li> <li>אם ישנה הגבלה בטווח אקטיבי, ניתן לבצע הפעלה אקטיבית מבודדת, רק של DIPJ, רק בזמן שעדיין ישנו כפתור</li> </ul>	<ul style="list-style-type: none"> <li>קביעת תור לטווח של הימים הקרובים ככל הניתן למכון בקהילה למעקב והתקדמות לפי הפרוטוקול.</li> <li>הדרכה בריפוי בניקסוק- הרמת היד מעל גובה הלב והתאמת מתלה הפעלת מפרקים לא מקובלים</li> </ul> <p><b>תרגול לאצבעות:</b> כל תרגיל, 10 פעמים כל שעתיים:</p> <ol style="list-style-type: none"> <li>הפעלה פסיבית לכיפוף מלא של האצבע (TROM) (אם ישנו קושי, ניתן להתחיל בהפעלה פסיבית מבודדת לכיפוף).</li> <li>הפעלה אקטיבית: הפעלה ראשונה: כ- 40 מעלות כיפוף PIPJ ו-30 מעלות כיפוף DIPJ (אל מול ארבעת אצבעות/אצבע המורה של היד השנייה). יש להקפיד על תנועה אקטיבית של DIPJ (FDP). רצוי לבצע ייחודיות גירוד של האצבעי.</li> <li>העלאת טווח אקטיבי בהדרגה כל יומיים וביום העשירי להגיע לאגרוף מלא. דירוג התרגול האקטיבי מיום 1-10: כל יומיים, לכופף לכיוון אצבע אולמריית יותר ביד השנייה נכ יומיים אל מול אצבעות פחות מהיד השנייה.             <ul style="list-style-type: none"> <li>יום 1: לאצבע המורה</li> <li>יום 3: לאמה</li> <li>יום 5: לקמיצה</li> <li>יום 7: לזרת</li> <li>יום 10: קמיצת אגרוף מלאה ל distal palmar crease</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>24 שעות לאחר החלפת הניחוח-21 יום</li> <li>החלפת הגבס לסד בלוק דורסלי: שורש כף יד 0 MP'S 0 IP'S</li> <li>כל האצבעות בסד (ניתן לפי שיקול דעת רופא להוציא את אצבע המורה).</li> <li>שימוש בסד 24 שעות ביממה.</li> <li>פתיחת רצועת הסד רק להפעלה מבוקרת.</li> <li>החצה עם כסוי גיילון מעל הסד.</li> </ul>	
	<p>1 יום 3 יום 5 יום 7 יום</p>		
	<p>3. ישר אקטיבי של אצבעות</p>		

## 11:50 Epidemiology of de Quervain's Tenosynovitis in post-partum women

Assaf Kadar, Efrat Daglan, Samuel Morgan, Matan Yechezkel, Sorin D. Iordache  
Hand Surgery Unit, Department of Orthopedics, Rabin Medical Center

**Objective** de Quervain's disease (DQD) is caused by stenosis of the first dorsal compartment containing the abductor pollicis longus and extensor pollicis brevis. As noted by de Quervain himself in the end of the 19th century, this condition affects women six times more than men and is also common in pregnant and lactating women. A more recent large epidemiological investigation reported a female to male ratio of 4.6/1. DQD in pregnant and lactating women is known to be self-limited and several studies have shown this condition resolves after cessation of lactation. The epidemiology and natural history of DQD in pregnant and lactating women is described for small patient groups only. In this study we sought to describe the gestational risk factors associated with post-partum DQD.

**Method** Sixty-three post-partum women with DQD were included in this study. Medical records were reviewed for patient characteristics including age, hand dominance, co-morbidities and BMI and gestational information including length of pregnancy, gestation number, single or twins birth and weight at birth. Odds ratio (OR) to incur de Quervain's tenosynovitis were calculated with the control group of 630 post-partum women without DQD who gave birth between 2012-2020 in the same district.

**Results** Length of pregnancy (>40 weeks, OR=5.81 (3.29- 10.28), first childbirth (OR=2.23 (1.32-3.77)), Overweight (BMI>25, OR=2.08 (1.14-3.81)) were all associated with a statistically significant risk of developing DQD. Number of fetuses>1 (OR=0.98 (0.29-3.33)) and birth weight over 3.5 kg (OR=0.60(0.30-1.21)) were not associated with higher risk of DQD.

**Conclusion** Gestational risk factor to develop post-partum DQD were first pregnancy and long pregnancy of over 40 weeks. Interestingly, child's birthweight and number of fetuses, both factors that might increase load on the first dorsal compartment while holding the child, were not shown to increase the risk of post-partum DQD.

## 12:00 Perilunate Dislocation above the Age of 65 Years: Case Series and Review of Literature

Guy Rubin, Amir Eliyahu, Erez Grinbaum, Nimrod Rozen  
Orthopedic Department, Emek Medical Center, Afula, Israel

**Introduction** Perilunate and fracture dislocations predominantly follow a high-energy mechanism. Perilunate dislocations have an incidence of 0.5/10<sup>5</sup> individuals/year, occurring at a mean age of 26 years and is frequently seen in males. This study aimed to describe the characteristics of this injury in elderly population of patients using literature review and our experience with four cases aged >65 years.

**Materials and Methods** We treated four patients with perilunate dislocation aged >65 years. All the patients' medical records were reviewed retrospectively. A literature review for case studies of perilunate dislocation was conducted with the purpose of finding cases including patients aged >65 years.

**Results** Three of our patients had injuries that were missed in the first visit in the emergency department. The mechanism of injury was high energy in only two patients. Two patients had posterior perilunate dislocation, while the other two had transradial perilunate dislocation. Three patients were available for follow-up. The overall outcome was satisfaction according the Mayo wrist score and minimal disability according to the Disabilities of the Arm, Shoulder and Hand score. All patients reported that pain was absent and they were able to return to their regular activities. The literature review found only seven papers documenting treatment of patients aged >65 years.

**Discussion** Perilunate dislocation is extremely rare in the population aged >65 years. Although the rate of missed diagnosis in our cohort was extremely high, the overall satisfaction and return to function was high.

**Conclusions** This case series and literature review highlight the unique characteristics of this injury in the age group of patients aged >65 years. Although perilunate dislocation in patients aged >65 years is rare, clinicians should be aware of the presentation of this condition in the elderly.

## 12:10 Occupational Hand Trauma – Mechanism of Injury and Transient Risk Factors in Jerusalem

<sup>1</sup>Shai Luria, <sup>1</sup>Hosam Khatib, <sup>1</sup>Madi El Haj, <sup>1</sup>Ido Volk, <sup>2</sup>Ronit Calderon-Margalit  
<sup>1</sup>Orthopedic Surgery, <sup>2</sup>School of Public Health, Hebrew University School of Medicine, Hadassah Medical Organization

**Objective** Occupational hand trauma is common, a great economic burden and differs dramatically between locations. There is little information on its incidence in Israel. We aimed to study the characteristics of occupational hand trauma in Jerusalem and its transient risk factors.

**Methods** We conducted a case-crossover study, including all adult patients with occupational hand trauma treated at the Mt. Scopus Hadassah Medical Center emergency department (ED) during a three month period. A custom made questionnaire was constructed in collaboration with the Israeli Institute for Occupational Safety and Hygiene, collecting demographic data, and information on occupation and exposure to potential risk factors. The interview was conducted either in person or by phone. For each potential risk factor we calculated the Mantel-Haenszel incidence rate ratio (RR) and 95% confidence interval (CI).

**Results** Of 206 patients treated with occupational trauma during the study period, 94 had trauma distal to the elbow (46%). The majority of patients were males, 21-30 years old, and Muslims (56%). The relative risk of transient factors were maintenance of a machine (RR:400, 95% CI 111-1437), use of a dysfunctional machine (RR:39, 95% CI 19-82) performing an unusual task (RR:20, 95% CI 7-53), being rushed (RR:13, 95% CI 9-18), being distracted by someone (RR:135, 95% CI 67-269), by a cellular phone (RR:109, 95% CI 45-267), or being troubled by something else (RR:56, 95% CI 19-166).

**Conclusions** Several modifiable risk factors were suggested in this pilot study. Phone interviews were found to have good compliance, only slightly inferior to in-person interviews in the ED. A larger study based on phone interviews and a larger geographical area will enable the comprehensive evaluation of personal factors as well as transient risk factors of occupational hand trauma, in order to plan and implement effective interventions.

## 12:20 **Electric Scooter-Related Upper Limb Fractures: Analysis of 461 Cases**

**Shai Factor**, Or Shaked, Franck Atlan, Tamir Pritsch, Ittai Shichman  
Hand Surgery Unit, Department of Orthopedic Surgery, Tel Aviv Medical Center, Israel

**Purpose:** To perform an analysis of electric scooter (e-scooter)-related upper limb fractures (ULF), the most common e-scooter-related injuries, which have increased dramatically in parallel with the rapid rise in the use of e-scooters and shared e-scooter services in recent years.

**Methods:** We retrospectively reviewed the medical charts of e-scooter-related emergency department (ED) visits between January 2017 to January 2020 in a level-I trauma center. All patients with ULF were included in the study, and their data were analyzed for demographics, fracture diagnosis (using the AO/OTA classification), associated injuries, and required surgical treatment.

**Results:** This study included 359 patients (51.7% females) with 461 ULF, of which 25 were open fractures (5.4%). The mean age of the cohort was 33 years (standard deviation 10.5). The most common mechanism of injury was rider fall (89.7%). The non-dominant hand was injured in 52.6% of cases, and 31.2% of all fractures were treated operatively. A total of 122 patients (34.0%) sustained more than 1 ipsilateral ULF, and 27 patients (7.5%) had a concomitant contralateral fracture. Radial head fracture was the most common fracture type (n = 123, 26.6%) of which 16 (13.0%) were bilateral. The 5th ray was injured most frequently (n = 33, 47.1%) among the metacarpal and phalange fractures. Most of the non-extremity-associated injuries were head and maxillofacial.

**Conclusion:** The most common ULF associated with e-scooters was radial head fracture. Physicians should be alert to and seek associated fractures during initial assessments of e-scooter-related upper limb injuries. Further investigation may be warranted to evaluate the effectiveness of protective measures in reducing the number of injuries.

## 12:30 **The effect of fluoroscopy in distal radius fractures reductions on the radiographic outcomes**

**Shay Zion Ribenzaft**, Uri Barak, Tomer Rubin, Shai Shemesh  
Department of Orthopedic Surgery and Traumatology, Rabin Medical Center, Beilinson Hospital, Israel

**Background:** The majority of displaced distal radius fractures presented to the emergency department are initially treated by closed reduction and immobilization. The primary goal is to achieve an optimal fracture alignment, and perform a radiographic assessment, as the quality of reduction can influence definitive management. Mini C-arm fluoroscopy provides a real-time assessment of fracture reduction and can theoretically improve the radiographic and clinical outcome.

**Methods:** A retrospective cohort analysis of eighty-five patients with DRF between 2015 and 2021 was conducted in a single trauma center. All patients underwent closed reduction and immobilization in a cast. Demographics and radiographic data were compared between the fluoroscopy-assisted group to those treated without fluoroscopy. The primary outcome measurement was reduction quality as measured on postreduction radiographs. Revisits and average time in the ED were also noted.

**Results:** 45 patients underwent fluoroscopically aided reductions, while 40 patients underwent reduction without fluoroscopy. No differences in postreduction radiographic parameters, including: radial length, radial inclination, dorsal angulation or intra-articular step-off were observed. In addition, the fluoroscopy and nonfluoroscopy groups did not demonstrate significant differences regarding indication for surgery, average time duration in the ED, and the number of patients who revisited the ED in the following week due to cast complications.

**Conclusions:** Fluoroscopy assisted reduction of distal radius fractures with dorsal angulation and radial shortening in the ED did not improve radiographic outcomes. The results of this study, as well as previous studies, suggests a reevaluation of the role of fluoroscopy in ED fracture management

## 12:40 **Partial wrist fusion: Our experience**

**Hamzi Salman**, Mosa Shade, Maram Gali, Yoram Ozer, David Rotem

Between 2015-2021, we treated 7 male patients by partial wrist fusion.

Six patients underwent excision of the scaphoid and 4 corner fusion by spider plate and one scaphocapitate fusion by screws.

We evaluated our results by revising outpatient clinic files and telephone interviews using DAHS score.

We will present our indications and results with follow-up of 1 to 6 year.

One patient developed CRPS. All remaining patients resumed previous professional and recreational activities. Some patients report mild to moderate pain during physical efforts.

All patients are satisfied with the surgery and said they were ready to do it again.

### 12:50 **Delayed surgical debridement of Gustilo type 1 and 2 open fractures of the forearm, does not increase the risk for infection**

**Dani Rotman**, Katherine Shehadeh, Frank Atlan, Daniel Tordjman, Yishai Rosenblatt, Tamir Pritsch  
Orthopedic Surgery Department, Tel Aviv Medical Center

**Objective:** Timing of operative debridement of open upper extremity fractures has not been shown to consistently alter infection rates, but treatment protocols continue to recommend prompt debridement of these fractures in the OR. In our medical center, treatment protocol for Gustilo type 1 and 2 open forearm fractures emphasizes prompt wound irrigation in the ED combined with intravenous antibiotic treatment for 72 hours. However, surgical treatment in some of these cases is postponed due to lack of available OR time.

**Methods:** medical charts of patients who presented to a level one trauma center with Gustilo type 1 or 2 open forearm fracture between 2017-2020 were retrospectively reviewed. Outcome measures were time to surgery, infection rate and union rate.

**Results:** 89 cases of open forearm fractures presented to the ED during the study period. 35 cases were excluded {5 Gustilo type 3; 5 were initially treated at another hospital; 3 were transferred to another hospital; 22 with lack of sufficient follow up (0-3 months)}, leaving 54 cases in our study group. Mean patient age was  $53 \pm 20$ , and 31 of them (57%) were males. There were 9 proximal third forearm fractures (3 both bones, 6 olecranon), 13 midshaft forearm fractures (both bones), 29 distal third fractures (16 both bones, 13 distal radius), and 3 periprosthetic fractures. 41 cases were classified as Gustilo 1, and 13 were Gustilo 2. Mean follow-up was 22 months (range 4-51 months). Surgical treatment in the OR was performed at a median time of 48 hours following presentation to the ED (range 2 hours -14 days). There were 2 (3.7%) cases of infection – one superficial wound infection successfully treated with oral antibiotics, and one deep wound infection which was already present during the initial surgery. There were 2 (3.7%) cases of nonunion, both underwent revision ORIF surgery with bone grafting, with full union at the final follow-up

**Conclusions:** Open forearm fractures (Gustilo type 1 or 2) can be safely treated with prompt wound irrigation in the ER combined with intravenous antibiotics, followed by delayed surgical treatment, with no apparent increase in infection or nonunion rates.

### 13:00 **Prosthetic resurfacing of engaging posterior capitellar defects in recurrent posterolateral rotatory instability of the elbow**

**<sup>1</sup>Dani Rotman**, <sup>2</sup>Jorge Rojas Lievano, <sup>2</sup>Shawn W. O'Driscoll

<sup>1</sup>Orthopedic Surgery Department, Tel Aviv Medical Center

<sup>2</sup>Department of Orthopedic Surgery, Mayo Clinic, Rochester, Minnesota, U.S.A.

**Objective:** Posterolateral rotatory instability (PLRI) is a common mechanism of recurrent elbow instability. While the essential lesion is in the lateral ulnar collateral ligament (LUCL), it may be associated with concomitant bony lesions in the coronoid process, the posterior capitellum and the radial head, reducing the articular surface restraint against joint dislocation. Currently, there is no proven treatment option for recurrent PLRI associated with posterior capitellar deficiency.

**Methods:** A case series of 5 patients with recurrent PLRI of the elbow, associated with a posterior capitellar impaction fracture engaging with the radial head during normal range of motion. The patients were treated surgically by LCL reconstruction or repair and off-label reconstruction of the capitellar joint surface using a small metal prosthesis designed for metatarsal head resurfacing (Arthrosurface HemiCAP toe classic).

**Results:** 5 patients (3 adolescent males, 2 adult females) were treated between 2007 – 2018. At a mean follow up of 4.5 years, all patients had complete relief of their symptomatic instability. The posterolateral rotatory drawer test was negative in four patients and equivocal in one. None had pain at rest, and 2 patients had mild pain (VAS 1-3) during physical activity. According to the SOD score, 3 rated their elbow as normal, 1 as almost normal, 1 as greatly improved, and the average score was 9.4. On radiographic follow up there were no signs of implant loosening. None of the patients required re-intervention.

**Conclusion:** Recurrent PLRI of the elbow associated with an engaging posterior capitellar lesion can be treated successfully by LCL reconstruction/repair and filling the capitellar defect with a metal prosthesis, with excellent clinical results in the short-medium term.

13:10 – 14:30 **Lunch, Exhibition Visit**

### **Session III: Chairpersons: Ronit Wollstein, Pinsky Masha**

14:30 – 15:40 Invited Speakers

14:30 – 15:00 **Surgical Treatment of Distal Radius Articular Malunion**

**Stephane Romano**

Head of Orthopedic and Plastic Surgery department, American Hospital of Paris, France

15:00 – 15:20 **Carpal Instability**

**Eitan Melamed**

Associate Professor of Orthopedic Surgery & Plastic Surgery, Icahn School of Medicine at Mount Sinai

Chief of Hand Surgery, Elmhurst Hospital Center

15:20 – 15:40 **Wrist Type and the Development of Osteoarthritis**

**Ronit Wollstein**

Professor, NYU Langone School of Medicine, NY

15:40 – 16:00 **Coffee Break, Exhibition visit**

### **Session IV: Chairpersons: Lior Paz, Zvika Halevi**

16:00 – 16:40 Free Papers [presentation: 6 min, discussion 4 min]

16:00 **Applicability of the Consensus Tool for Measuring Outcomes in Wrist**

**Ronit Wollstein**

Professor, NYU Langone School of Medicine, NY

16:10 **Repeat Limited Fasciectomy is a Safe and Effective Treatment for Dupuytren's Disease Recurrence**

Raymond Anakwe, Thomas Ashdown, **Edward Hayter**, Max Little, James Morris, Oliver Clough  
The Hand and Wrist Service, Imperial College Healthcare NHS Trust, UK

The results of surgery for Dupuytren's disease can be blighted by the potential for disease recurrence and loss of function. Identifying those patients who will benefit from repeat surgery, when to operate and what procedure to undertake requires judgement and an understanding of patient expectations and functional needs. We undertook this study to investigate patient outcomes and satisfaction following repeat limited fasciectomy for recurrent Dupuytren's disease.

We prospectively identified all patients presenting with recurrence of Dupuytren's disease and selected for surgical treatment with repeat limited fasciectomy surgery. Patients were assessed preoperatively and again at a minimum of 5 years postoperatively. The primary outcome was change in the Michigan Hand Outcomes Questionnaire (MHQ) Score. Secondary outcomes were change in finger range of movement, flexion contracture, Semmes-Weinstein monofilament values and overall satisfaction.

Forty three patients underwent a repeat digital fasciectomy on a total of 54 fingers. There was a significant improvement in Michigan Hand Outcomes Questionnaire scores, across all domains, with a mean overall score increase of 24 points ( $p < 0.0001$ ). Overall the combined flexion contracture across the MCPJ and PIPJ reduced from 72 to 5.6 degrees ( $p < 0.0001$ ). An increase in maximal flexion was seen at the MCPJ ( $p < 0.0001$ ) but not the PIPJ ( $p = 0.55$ ). The mean overall satisfaction score from the visual analogue scale (VAS) was 8.9 (range 7.9 – 10). Complications were uncommon although five fingers showed reduced sensibility at final follow up.

Our study shows that repeat limited fasciectomy for selected patients presenting with recurrence of Dupuytren's disease can be an effective and safe treatment resulting in excellent patient reported outcomes and levels of satisfaction.

16:20 **Early postoperative dressing removal in hand surgery: Novel concepts for individualized surgical dressing management**

Franck Atlan, Itay Ashkenazi, Katherine Shehadeh, Dvir Ben-Shabat, Ittai Shichman, Gilad Eisenberg, Yishai Rosenblatt, Daniel Tordjman, Tamir Pritsch, Shai Factor

Hand Surgery Unit, Department of Orthopedic Surgery, Tel Aviv Medical Center, Israel

**Background:** Postoperative dressing protocols after clean surgery without implant vary widely. The purpose of this study was to elucidate whether early postoperative dressing removal is a valid option, as compared to untouched dressing or twice-weekly dressing change approach.

**Methods:** A prospective randomized study was conducted on patients who underwent carpal tunnel release (CTR) or trigger finger release (TFR) between January and November 2020. Patients were randomly distributed into 3 groups: surgical dressing untouched until first follow up (SDU); surgical dressing changed twice a week in a health maintenance organization (HMO); and surgical dressing removed at first postoperative day (SDR). Data collected included patient characteristics, pre-and post-operative functional (QuickDASH) and autonomy (Instrumental Activities of Daily Living performance (IADL)) scores, Vancouver scar scale (VSS) and potential complications.

**Results:** Eighty-four patients were included: 28 (33.3%), 29 (34.5%) and 27 (32.1%) in the SDU, HMO and SDR groups, respectively. Deterioration in mean IADL score at 2-week follow-up was statistically significant in the HMO group (mean delta 3.35,  $p = 0.008$ ). Quick DASH score improved significantly between preoperative and 2-week follow-up values only in the SDU group (mean delta 9.12,  $p = 0.012$ ). Other parameters, including wound complications, did not differ significantly between groups.

**Conclusion:** Early removal of postoperative dressing and immediate wound exposure was a safe option after CTR and TFR. An untouched bulky dressing correlated with early functional improvement. Finally, iterative dressing change in HMO showed no benefit and led to significant deterioration in early postoperative autonomy.

## 16.30 Closing Remarks

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