www.ifssh.info VOLUME 11 | ISSUE 3 | NUMBER 43 | AUGUST 2021

ezine ifssh

CONNECTING OUR GLOBAL HAND SURGERY FAMILY

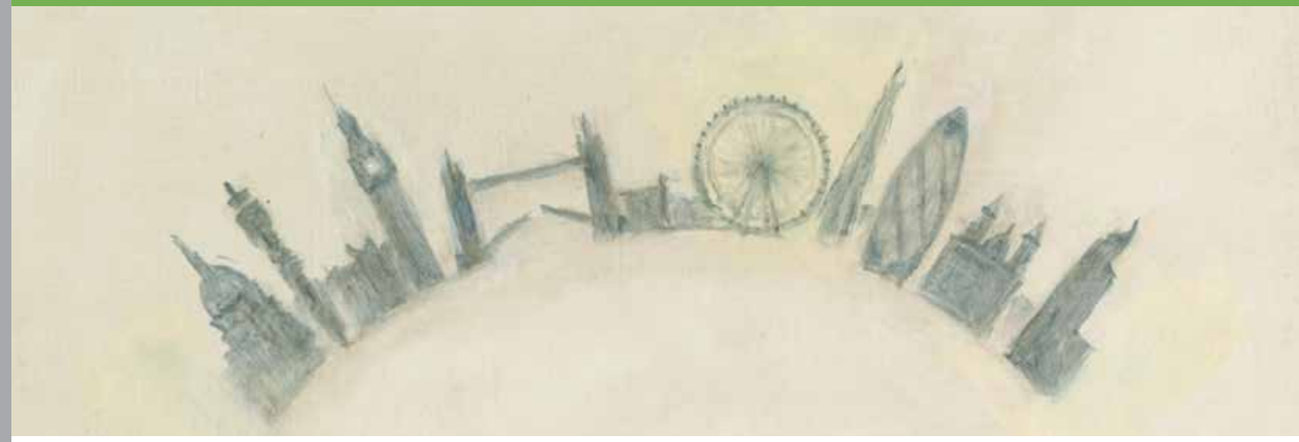
PEARLS OF WISDOM
THE EVALUATION OF A CHILD

HAND THERAPY
CONDUCT A REMOTE HAND THERAPY COURSE IN TIMES OF THE COVID-19 PANDEMIC

Examining Kids

PIONEER PROFILES | ISFFH SPONSORSHIPS | PUBLISHED REVIEW ARTICLE

6-10 JUNE 2022



contents

A New Status Quo?

Almost two years have passed since the first announcement of a new deadly virus was made. The rapid spread of the SARS-CoV-2 virus over just a few months necessitated the WHO (World Health Organisation) to declare it a pandemic on 11 March 2020.

Not many countries heeded this warning, and responded slowly to curb its spread. The first wave of infections overwhelmed many health systems worldwide. Not long thereafter, despite serious lockdowns and much hardship, a second wave of infections hit the world. The same pattern is presently repeating itself due to new variants of the virus causing a third wave, and again tighter restrictions of movement and behaviour are imposed.

The lockdowns and restrictions have resulted in fatigue, frustration, rising unemployment rates, financial ruin and hunger among many people.

Current epidemiological information predicts that the SARS-CoV-2 virus in its various mutated forms will most likely be with us for a very long time to come.

It is therefore clear that we have to switch gears from using emergency measures in dealing with this nasty virus, to finding more sustainable solutions and ways of doing things in our practices, surgeries, clinics, hospitals and teaching environments.

Many of you have submitted moving reports to the Ezine on how covid-19 has affected the activities of your societies and practices.

In the same spirit, I invite you to use the IFSSH Ezine as a platform to share new ideas, innovative strategies and practical suggestions on how we could attempt to create a new status quo which will allow us to be safe while being optimally effective.

Some have indicated that in-person meetings are essential for meaningful deliberation, dialogue and discussions. Virtual meetings have many advantages, amongst others cost and time savings, as well as the involvement of many more participants from all over the globe. But, since we are social beings, there is a yearning for personal interaction, which has an added dimension when sharing knowledge and information.

But in the meantime, until this pandemic can be curtailed by mass global vaccination to a seasonal flu-like infection, we have to act cautiously for ourselves and be respectful towards others.

Be safe.

Ulrich Mennen
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Letter to the Editor:

In the last Ezine (May 2021 #42)the Spanish Society for Surgery of the Hand reported on a research project to determine the morbidity and mortality rates of patients who underwent orthopaedic and trauma surgery during a period of uncontrolled covid-19 spread. The bottom line is that the covid-19 infection rate of operated patients was similar to the general population. The survival rate of those who were operated on the joints of their hands and feet was 100%. This information may help in planning hand surgeries during the pandemic. Full detail can be found in the peer reviewed published article: Corella et al. 'BMC Musculoskeletal Disorders' (2021) 22:594

Sincerely yours,

R.S Rosales

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Message from the Secretary-General:

The IFSSH Delegates' Council held a virtual meeting on 3 July 2021, and ratified many changes which will have a positive impact on the functioning of our Federation. Since writing the last newsletter (Ezine May 2021), a new variant covid-19 has unfortunately caused flare-ups of the infection in many countries. However, the vaccination effort has taken off, and scientific evidence indicates clearly that fully vaccinated persons are more than 90% protected from getting serious covid-19 symptoms or dying from this infection. Hopefully the vaccination effort worldwide will allow us to meet in person in London for the next IFSSH Congress from 6-10 June 2022.

IFSSH Membership: Peruvian Association of Hand Surgery and Microsurgery

The Peruvian Association of Hand Surgery and Microsurgery (APCMM) was admitted to the IFSSH membership at the 2021 IFSSH Delegates' Council Meeting. The APCMM is the 61st Member Society in the Federation.

The Council welcomed Dr. Mirko Tello Vinces, APCMM President. We congratulate all members of the APCMM on their successful application and we look forward to their participation in all future IFSSH activities.

Allied Organisation: Federación Latino-americana de Cirugía de la Mano

In 2019 the South American Federation for Hand Surgery moved to include the Central American countries (Spanish speaking language) into its Federation. This expansion resulted in the Federation updating its constitution and name to the Latin American Federation for Hand Surgery (Federación Latino-americana de Cirugía de la Mano - FLACM).

The IFSSH congratulates FLACM on this achievement and has recognised this update within the IFSSH Allied Organisations.

2022 Elections: Executive Committee and Nominating Committee members

The revised IFSSH Bylaws (accepted by the Delegates' Council in 2020) include the expansion of the Executive and Nominating Committees from 2022. The details of this process were described at the Delegates' Council Meeting.

At the London 2022 Triennial IFSSH Congress, the following will occur:

- the current President, Marc Garcia-Elias, automatically moves to Past President;
- the current President Elect, Daniel Nagle, automatically moves to President;
- the current Secretary-General, S Raja Sabapathy, automatically moves to President-Elect;
- the Secretary-General Elect position, now empty, is removed from the ExCo as per the 2020 Bylaw revisions; and
- the Historian position is also removed (a Communications Director is established instead).
-

The Delegates' Council will then need to elect the following officers at the London 2022 meeting, as per the ExCo composition described in the 2020 Bylaws:

- the incoming Secretary-General;
- a Communications Director; and
- 5 ExCo Members-at Large (regional representation)

In addition, outside of the Executive Committee, but to specifically be a part of the Nominating Committee only:

- 2 Nominating Committee Members-at-Large

The full application and election processes for these positions have been distributed to all Society Delegates. These are also listed on the IFSSH website (https://ifssh.info/2022-elections.php) - under the "Officers" tab. All Societies should consider the essential and desirable qualities for the positions when considering nominations.

The application forms for each position will be placed on the IFSSH website by 1 September 2021. At this time we invite all Societies to start considering their proposals and to contact the secretariat if you have any questions. Applications must be received by the secretariat (administration@ifssh.info) by 6 February 2022.

2022 Pioneers of Hand Surgery: Call for Nominations

The IFSSH welcomes nominations for the 2022 IFSSH Pioneer of Hand Surgery honours. The IFSSH awards "Pioneer of Hand Surgery" status to any person who excels exceptionally, beyond what is normally expected in the field of hand surgery.

The person must be recommended in writing, be at least 70 years of age at the time of the next Federation Congress or deceased, have made a significant contribution to hand surgery nationally or internationally, and may only be nominated following approval by the members of the hand surgery society to which he/she belonges (belonged). Submission of an application for Pioneer must be accompanied by written recommendations from three of his/her peers. The guidelines for nomination and the application form are on the IFSSH website - https://ifssh.info/pioneers_hand_surgery.php. Applications must be received by the secretariat (administration@ifssh.info) by 6 December 2021.

Future Meetings

A detailed list of national and regional hand surgery meetings is available on the IFSSH website. The triennial IFSSH Congresses are as follows:

XVth IFSSH – XIIth IFSHT Congress – London, United Kingdom
6 - 10 June 2022

XVIth IFSSH – XIIIth IFSHT Congress – Washington D.C., USA
29 March - 3 April 2025

Further information
Updates for all IFSSH matters will be provided regularly through the website (https://ifssh.info/), the Ezine (https://ifssh.info/ifssh_ezine.php) and our Twitter/Instagram feeds (@IFSSHand). Please subscribe and share with your Society Members.

With very best wishes

S. Raja Sabapathy
Secretary-General, IFSSH
Email: secretary@ifssh.info

President's Message

Dear Friends,

Whether it is the pandemic or other circumstances, this year started as no other in the past.

Ten months have elapsed since our last Delegates' Council Meeting on 12 September 2020. However several important issues have kept us busy during our confinements. The most important being the unfortunate news of Goo Hyun Baek's resignation from our Secretary-General position, not because of the IFSSH or our will, but for personal reasons. Raja Sabapathy moved into this position and we are safely guided by his IFSSH experience.
Of course, today's message is: please, be safe!

We all are looking forward to seeing each other again, less than a year from now, in London for the next IFSSH Congress. The team led by Drs. Shewring and Hobby are working hard to provide us with a successful congress. Let's not forget, however, that success in a post-Covid society should not be counted on the amount of money collected or the number of attending delegates – it is participation and co-operation with the ones in need that will allow us to expand and develop collectively.

One of the decisions taken last year by the Delegates Council was to retain the triennial mode of congresses, while moving on to a more frequent leadership change through two-year terms. At the 2022 London Congress we will elect an expanded Executive Committee: an increase of the Member-at-large positions from one to five, improve the geographic representation, as well as another two Member-at-large positions in the IFSSH Nominating Committee. Our traditional Historian position will be redesigned to become a Communications Director. In the weeks to come we will start explaining the changes and the opportunities that will open up, so please ensure that your Society Delegate participates in these important decisions.

Another important issue that needs to be clarified is the role and status of the so-called IFSSH Allied Organisations (IFSHT, FESSH, APFSSH, HWBI, FLACM, etc). At the current time, there is no provision for the IFSSH to "protect" these Allied Organisations. Their existence is not even mentioned in our new bylaws as a legal entity, but just documented in the Policies and Procedures guidelines. Let me state it clearly and to the point: the title of "Allied Organisation" does not provide any coverage or oversight by the IFSSH, but simply the recognition of a relationship of common interests through a link on the IFSSH website, the sharing of news through the Ezine, and an invitation to join the IFSSH Delegates Council Meetings (as a non-voting representative).

And finally, let me thank in public the wonderful work done by Past President Ulrich Mennen and his team for the publication of the e-magazine IFSSH Ezine for over a decade. Please visit the IFSSH website (www.ifssh.info) to read the archived copies of this publication and also to keep up to date with the news and notes.

Marc Garcia-Elias
President: IFSSH

Published Review Article

Published online: 2020-04-09

Bennett's Fracture Repair—Which Method Results in the Best Functional Outcome? A Retrospective Cohort Analysis and Systematic Literature Review of Patient-Reported Functional Outcomes

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J Hand Microsurg 2021;13:81–88.

Abstract

Surgical fixation of Bennett's fracture of the thumb is critical to prevent functional impairment; however, there is no consensus on the optimal fixation method. We performed an 11-year retrospective cohort analysis and a systematic literature review to determine long-term patient-reported outcomes following Bennett's fracture fixation. Retrospective cohort analysis identified 49 patients treated with Kirschner (K)-wire fixation, 85% returned to unrestricted movement during hand therapy. Forty-seven patients (96%) completed the disabilities of the arm, shoulder, and hand (DASH) questionnaires at a mean of 5.55 years from injury, with a mean score of 7.75. Systematic literature review identified 14 studies with a cumulative 541 patients. Fixation included open or percutaneous methods utilizing K-wires, tension band wiring, lag screws, T-Plates, external fixation, and arthroscopic screw fixation. Functional outcomes reported included DASH, quickDASH (qDASH), and visual analogue scores. Superficial wound infection occurred in 4 to 8% of percutaneous K-wire fixation. Open reduction internal fixation (ORIF) methods were associated with a 4 to 20% rate of reintervention and 5 to 28% rate of persistent paresthesia. Closed reduction with percutaneous K-wire fixation should be the first choice surgical method, given excellent, long-term functional outcomes, and low risk of complications. ORIF should be utilized where closed reduction is not achievable; however, the current evidence does not support one method of ORIF above another.

Keywords
- Bennett's fracture
- hand surgery
- K-wire
- functional outcome
- long-term

Introduction

Bennett's fractures are displaced intra-articular fractures of the base of the first metacarpal and were first described by Edward Bennett.[1] The volar ulnar aspect of the base of the thumb metacarpal separates and is subsequently held in place by its ligamentous attachment to the trapezium. However, the forces exerted by the abductor pollicis longus will displace the fragment from the rest of the thumb metacarpal.[2]

Bennett's fracture requires reduction and surgical fixation to prevent malunion and loss of function of the first carpometacarpal joint (CMCJ). Griffiths demonstrated that closed reduction and cast immobilization without fixation will result in fracture displacement and loss of function in many patients.[3] Gedda demonstrated that surgical fixation results in improved fracture reduction and return to functional baseline when compared with closed reduction and plaster cast immobilization.[4]

published online
April 09, 2020

DOI https://doi.org/10.1055/s-0040-1703412
ISSN 0974-3227.

While the need for surgical fixation is clear, the method of fixation varies by center, and due to the infrequency of this eponymous fracture, there is a paucity of data on long-term functional outcomes.[5] Fracture fixation is most commonly achieved through either Kirschner (K)-wire insertion, which can be open or percutaneous, or open reduction internal fixation (ORIF) with lag screws. Separately, some studies report the use of tension wiring around the base of the first metacarpal in addition to K-wire insertion, and others report using arthroscopy to assist screw insertion.

Optimal, evidence-based management of Bennett's fracture necessitates long-term patient-reported outcome measures. We present an 11-year retrospective analysis of the patient cohort treated at our institution, followed by a systematic review of the literature, to determine long-term patient-reported outcomes following surgical fixation of Bennett's fracture.

Materials and Methods

Retrospective Cohort Analysis

We conducted a retrospective analysis of our center's trauma database to identify patients with Bennett's fracture of the thumb who underwent surgical fixation. Our unit provides trauma care to a large urban center population. Standard preoperative radiographs include anteroposterior, lateral, and oblique views, with further imaging intraoperatively. Robert's view is not routinely included in preoperative imaging. Treatment at our institution consists of closed fracture reduction under anesthesia, percutaneous transmetacarpal K-wire fixation under X-ray image intensifier guidance, followed by postoperative hand therapy rehabilitation. Electronic medical records were reviewed to identify procedure type, mechanism of injury, smoking status, postoperative complications, postoperative range of movement, and length of hand therapy follow-up. Patients were excluded if their operative records were unavailable or they were lost to follow-up.

Medical records were further analyzed to determine joint range of motion achieved by the end of hand therapy; this was classified into full range of motion and restricted range of motion. Patients were subsequently invited to complete the disabilities of the arm, shoulder and hand (DASH) questionnaire to gather long term patient-reported outcome measures of hand function. The overall DASH score out of 100 was calculated for returned questionnaires.

Systematic Literature Review

Separately, a comprehensive, systematic literature review was conducted in adherence to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines.[6] This literature search was performed using the electronic databases PubMed, SCOPUS, and The Cochrane Foundation. The search terms used are detailed in ►**Table 1**. Prespecified limits for study inclusion were that the study report primary evidence of functional outcomes following Bennett's fracture fixation in at least 10 patients. We extracted patient number, patient age, fixation method, length of follow-up, key functional outcomes including patient-reported outcomes, complication rates, and risk of bias using a structured proforma to ensure consistency of appraisal.

Table 1 Systematic literature search strategy

Search strategy
1 = "Bennett's Fracture" OR "Bennetts Fracture"
2 = "Repair" OR "Fixation" OR "K-wire"
Limits
Publication date prior to March 7, 2019

Note: Search strings 1 and 2 were combined using the Boolean term AND, then the limits were applied.

Statistical Analysis

Data were analyzed using IBM SPSS statistics version 24. Descriptive statistics were reported and statistical analysis, including meta-analysis, performed where sufficient data were present. The Mann–Whitney*U*-test was used to compare independent groups which were nonnormally distributed. The Shapiro–Wilk test was used to assess for normality. One-way analysis of variance (ANOVA) was used to compare data among more than two groups. Correlations between categorical variables were examined using the Chi-squared test. Regression analysis was utilized to examine relationships between continuous variables. Two-tailed *p*-values were reported throughout and ap-value < 0.05 was considered statistically significant.

Results

Retrospective Cohort Analysis

A total of 61 patients were identified over an 11-year period (2006–2017) from our database analysis. Among 61 patients, 12 were excluded due to being lost to follow-up or subsequently being found not to meet the inclusion criteria. Among the 49 patients included in our study, 47 were male and 2 were female. Patients were classified radiographically using Gedda's classification; 91.8% (45) of patients presented with type 1 fractures, 2% (one) with type 2, and 6.1% (three) with type 3 fractures.[4]

Postoperative Rehabilitation

Postoperatively, mean follow-up time in hand therapy clinic for rehabilitation and clinical assessment was 17.2 (range: 3–52) weeks. Postoperative range of movement values were documented; among 49 patients, 85.1% (40) returned to unrestricted movement within the hand therapy follow-up period, 7 patients (10.9%) had partial restriction of thumb movement, with data being unavailable for 2 patients. Restricted movement was defined as a Kapandji's score of less than 9, or where this was not stated, a first carpometacarpal flexion–extension range of less than 40 degrees.[7]

Long-Term Patient-Reported Functional Outcomes

All 49 patients were invited to complete the DASH questionnaire to assess long-term functional outcomes from the

patient's perspective, 47 patients responded (95.9%). The mean time between operative repair and patient completion of a DASH questionnaire was 5.55 (range: 1.41–11.2) years.

The mean DASH score amongst responding patients was 7.75 (range: 1.7–18.3; ►**Fig. 1**); 14 patients (29.7%) had a DASH score of 10 or more, only 5 patients (10.6%) had a DASH score of 15 or more (15.0, 16.0, 17.0, 17.5, and 18.3, respectively).

Fracture Fixation Method

Among 49 patients, 91.8% (45) were managed with closed reduction with percutaneous of K-wire fixation. The remaining 8.2% (4) required open reduction with K-wire fixation where adequate anatomical reduction was not otherwise achievable. There was neither significant difference between open and closed K-wire fixations in terms of rehabilitation outcomes nor long-term DASH scores ($p = 0.588$, $p = 0.969$, respectively).

Mechanism of Injury

Mechanisms of injury reported by patients on admission were: sports injuries (31.1%), violence (24.6%), falls (18%), road traffic accidents (16.4%), occupational (4.9%), and other miscella neous accidents (4.9%). There was no significant difference in rehabilitation outcomes nor long term DASH scores between the different mechanisms of injury (= 0.124, = 0.610, respectively).

Age at Injury

The mean age at time of injury was 32.4 (range: 14–74) years (►**Fig. 2**). Patient age at the time of injury was neither correlated with postoperative recovery nor patient-reported long-term DASH scores ($p = 0.510$, $p = 0.631$, respectively).

Time to Fixation

The mean time to surgery following Bennett's fracture was 6 (range: 1–17) days. Time to surgery was neither correlated with postoperative recovery nor long-term patient-reported DASH scores ($p = 0.424$, $p = 0.44$, respectively).

Smoking Status

Of the 49 patients, 19 (38.7%) were smokers and 5 did not have a recorded smoking status. There was no significant association between smoking status and postoperative rehabilitation, nor long-term DASH scores ($p = 0.576$, $p = 0.352$, respectively). There was no significant relationship between smoking and complication rates (X^2, $p = 0.178$).

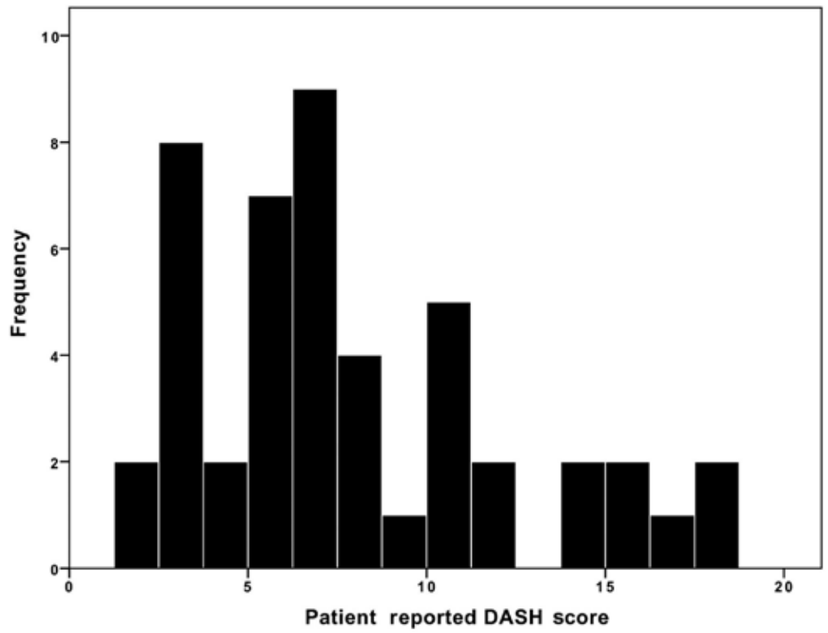


Fig. 1 Long-term patient reported functional outcomes after Bennett's fracture fixation using the disabilities of the arm, shoulder, and hand (DASH) questionnaire.

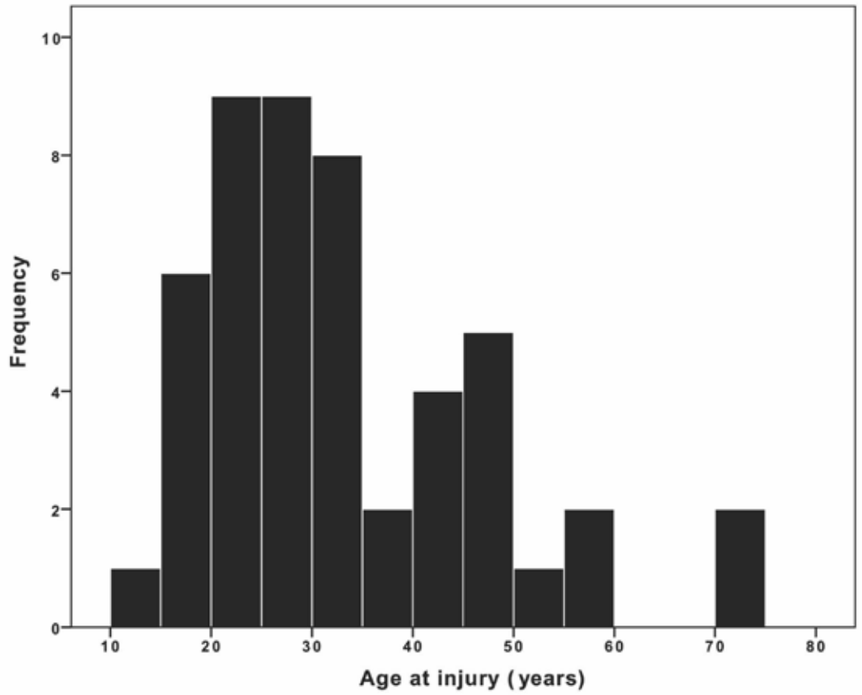


Fig. 2 Patient age at the time of fracture.

Complications

Complication rates amongst these patients were low. Five patients had documented postoperative complications (10.2%) of which three were wound infections (►**Table 2**). Patients with documented wound infections were all suc cessfully treated with oral antibiotics as an outpatient, and there was no significant difference in the long-term reported DASH scores ($p = 0.205$).

Table 2 Documented postoperative complications for all included patients

Complication	Number	Outcome
Wound infection	3	All resolved with oral antibiotics
Broken K-wire	1	Surgically removed
K-wire displaced	1	K-wire removed

Systematic Literature Review

Systematic review of the literature identified 124 papers after duplicate removal; after full text review, 14 papers met the predetermined inclusion and exclusion criteria (►**Fig. 3**).

Key data extracted during the literature review are summarized in ►**Table 3,** for clarity. The 14 included papers reported 541 patients with Bennett's fracture that under went surgical fixation. Retrospective cohort studies were the most common study design, providing level-III evidence. Key data extracted included procedure type, patient number, follow-up length, outcome metrics, and complications (►**Table 3**).

DASH, quickDASH (qDASH), and visual analogue scales (VAS) were reported in 10 of the 14 included studies, providing patient-reported outcomes measures of long-term functional recovery. Where these metrics were unavailable, any other functional outcome metrics that were available were extracted.

Discussion

The optimal management of Bennett's fracture is still a topic of debate. Studies have demonstrated the need for surgical fixation, given the inherent instability of the fracture, to achieve good functional outcomes.[3,8,9] However, the use of a variety of surgical fixation methods continue to be report ed in the literature, including the use of K-wires with either open or closed reduction and fixation, external fixation devices, tension band wiring, lag screws, miniature T-Plates,

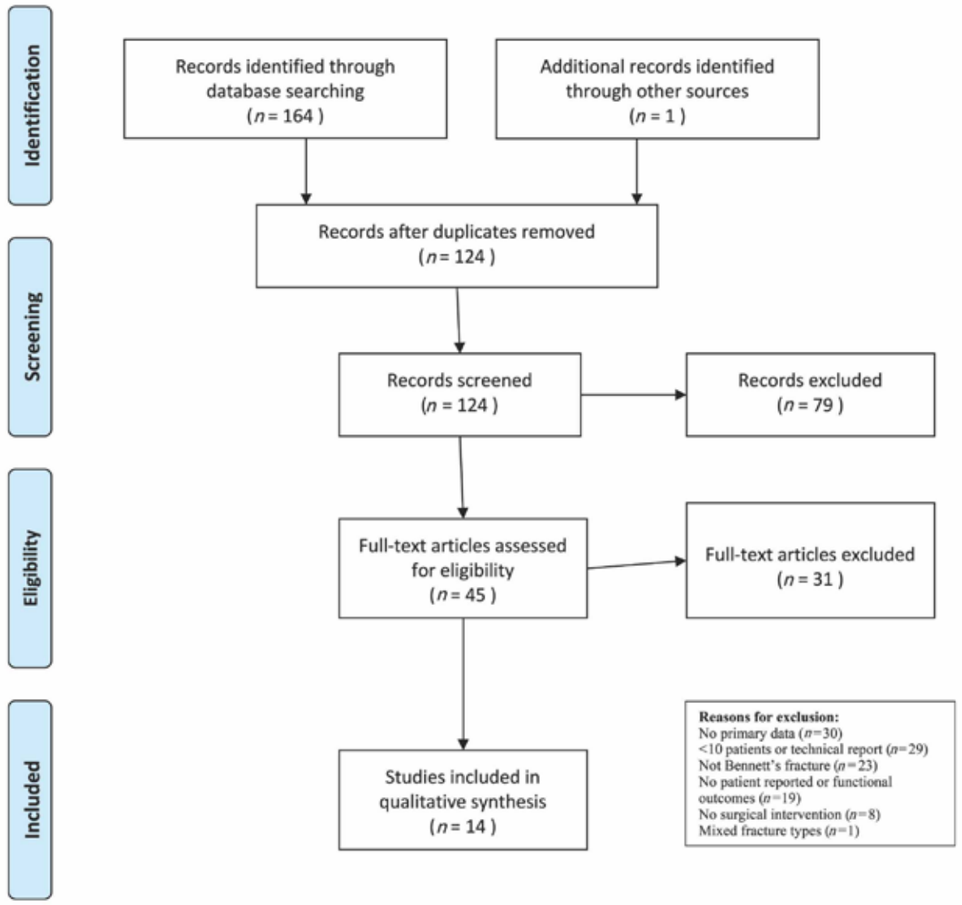


Fig. 3 PRISMA literature search flow diagram. PRISMA, preferred reporting items for systematic reviews and meta-analyses.

and arthroscopic screws. We review the evidence for each of these in turn.

K-wires are the most commonly used method of fixation, being utilized in our cohort and 12 of 14 studies reported in the literature. Study design varies from the use of percu taneous K-wires only, open K-wire fixation, to direct comparison with other fixation methods. Along with our cohort, 10 further studies report the use of percutaneous K-wire fix ation with a total of 251 patients (►**Table 3**). Mean follow-up of these patients ranged from 15 months to 11.5 years. DASH scores were predominantly reported in more recent stud ies, with mean scores of 1.77 to 4.0, and 7.75 in our cohort. Franchignoni et al demonstrated that the minimum clinically significant score with the DASH questionnaire is approx imately 10 to 15 points.[10] Patients rarely reported DASH scores greater than 15, even at very long follow-up times; for instance, in our cohort fewer than 10% of patients reported a DASH score of more than 15. This demonstrates that percutaneous K-wire fixation reliably results in excellent long-term patient outcomes.

Complication rates with percutaneous K-wire fixation are low; superficial wound or wire tract infection was the most commonly reported in approximately 4 to 8% of patients. In our cohort, these infections were superficial, resolved with oral antibiotic treatment, and had no substantial impact on long-term functional outcomes.

Table 3 Systematic literature review results. Studies reporting outcomes after Bennett's fracture fixation in at least 10 patients

	Kamphuis (2019)[24]	Zhang et al (2019)[17]	Levy et al (2018)[12]	Pomares et al (2016)[19]	Middleton et al (2015)[25]	Li et al (2014)[11]	Leclere (2012)	Zhang et al (2012)[16]	Demir et al (2006)[21]	Lutz et al (2003)[22]	Brüske et al (2001)[13]	Timenga (1994)	Van Niekerk and Ouwens (1989)	Salgeback 1971
Age (y)	34 (±12) years	32 (range: 24–54)	32 (range: 22–52)	30.2 (range: 16–42) vs. 37.4 (range: 18–59)	33.2 (range: 18–75)	37(no range)	40.1 (range: 24–64)	32 (range: 19–51)	36.4 (range: 20–75)	28 (no range) vs. 37 (no range)	42 (range: 23–58)	43 (SD = 13.36)	25 (range: 16–34)	39 (range: 16–81)
Fixation method	Closed K-wire (*n* = 15) vs. ORIF screw (*n* = 35)	Open K-wire + tension band (*n* = 37) vs. closed K-wire (*n* = 35)	ORIF mixed screws or K-wire (*n* = 21)	ORIF screw (*n* = 10) vs. arthroscopic screw (*n* = 11)	Closed K-wire (*n* = 62)	External fixator (*n* = 56) vs. ORIF mixed screw and K-wire (*n* = 32)	ORIF screw (*n* = 24)	Open K-wire + tension band (*n* = 56) vs.closed K-wire (*n* = 21)	ORIF screw (*n* = 15) vs. closed K-wire (*n* = 4)	ORIF screw (*n* = 15) vs. closed K-wire (*n* = 17)	Closed K-wire (*n* = 14) vs. open K-wire (*n* = 5)	Closed K-wire (*n* = 7) vs. ORIF (*n* = 11)	Closed K-wire (*n* = 8) Open K-wire (*n* = 2) "Other methods" (*n* = 2)	Closed K-wire (*n* = 23) vs. open K-wire (*n* = 5)
Average follow-up (range)	10 (6–14) y	15 (12–18) mo	8 (3–10) mo	33.3 (28–36) vs. 27.6 (24–31) mo	11.5 (3.4–18.5) y	7 (2–10) y	83 (54–154) mo	39 (36–42) vs. 35 (31–41) months	38.9 (6.4) mo	7 (3–18) y	1.5 (0.5–3) y	10.7 (7–16) y	6.25 (1.5–9) y	6 (1–14) y
Outcome (range)	DASH, 4 (0–12) vs. 0 (0–6) Pain VAS, 0 (0–0) vs. 0 (0–0)	DASH, 1.06 (0–2) vs. 1.77 (0–3) The Kapandji, 9.31 (8–10) vs. 8.45 (7–10)	Quick-DASH, 15 (no range) VAS score, median: 0 (IQR: 0–1.5)	QuickDASH, 4.3 (0–18.18) vs. 3.1 (0–18.18) Kapandji, 9.5 (8–10) vs. 9.9 (9–10)	DASH, 3.0 (0–38)	VAS pain, "No significant difference between groups" (values not stated)	VAS score, 1.4 (1–1.8) ("pain," 0–10 scale) Mean palmar abduction 93–0-5 degrees	Pain VAS, (0–10 scale) 0 (0–2) vs.0 (0–5) CMC] flexion extension 49 (45–54) vs. 47 (38–53) degrees	DASH 5.6 (1.9) (No subgroup results)	Pain 27% (*n* = 4) vs. 12% (*n* = 2) Mean active opposition (SD) 43 degrees (10) vs. 45 degrees (9)	"Full opposition" in 100% of patients VAS score, 1.2 (1.1–1.5) ("Disability," scale 1–5) Pain 33% (*n* = 7) no subgroup	Full range of movement, 100% of patients No perceived handicap: 100% of patients "Mild stiffness" 43% (*n* = 3) vs. 27% (*n* = 3)	"No complaints" (*n* = 8) "Slight complaints" 33% (*n* = 4)	Closed: 87.5% "No complaints" 12.5% "normal working capacity, slight discomfort" vs. Open, 100% "No complaints"
Complication	Revision, 6% (*n* = 1) vs. 20% (*n* = 7) Infection, 6% (*n* = 1) vs. 0% Paresthesia, 13% (*n* = 2) vs. 28% (*n* = 11)	None reported	Revision: 10% (*n* = 2)	60%: 6 pain, 1 weakness, 1 malunion, 1 paresthesia vs. 9%: 1 complex regional pain syndrome	Wound infection 4.2%	Wound infection, 5 (*n* = 3) vs. 0% Delayed union, 0 vs. 6% (*n* = 2)	Revision: 4% (*n* = 1)	None reported	None reported	None reported	None reported	None reported	None reported	None reported

Abbreviations: K, Kirschner; ORIF, open reduction internal fixation; QuickDASH, a shortened version of disabilities of the arm, shoulder, and hand; SD, standard deviation; VAS, visual analog scale.

Our cohort was further analyzed for factors associated with inferior long-term outcomes following K-wire fixation and found no statistically significant association with patient age, mechanism of injury, time to repair, and nonsmoking status. The four patients that reported DASH scores greater than 15 were representative of the overall cohort, with no evidence of differences pre- or postoperatively.

One study reported the use of external fixation devices in 56 patients with a mean follow-up time of 7 years.[11] Li et al compared the use of external fixation devices to open reduction internal fixation; however, we can draw little in the way of conclusions from their study given the limited outcomes data provided, and their comparison to a mixed ORIF group of K-wires and lag screws.

ORIF methods are an alternative to percutaneous fixation, with several distinct methods reported including the use of K-wires, tension band wiring, lag screws, miniature T-Plates, and arthroscopic screw placement. In total, 13 of 14 papers reported patient cohorts after ORIF with a total of 279 patients, distinct procedure methods are discussed subsequently. While different functional outcome measures have been reported, it is evident that open fixation methods also result in excellent long-term outcomes, with mean DASH and qDASH scores (range: 0–15) and VAS scores (range: 0–1.4 out of 10), comparable to that of percutaneous K-wire fixation. Complication rates and types do differ between open and closed methods; however, the need for operative revision is reported not uncommonly in 4 to 20% of cases, persistent paresthesia in 5 to 28% of cases, along with one report of chronic regional pain syndrome. Wound infections, by contrast, are not reported in open fixation methods.

Among those studies reporting on open reduction methods, five studies reported on the use of K-wires for ORIF[11–15]; however, the conclusions that can be drawn from these data are limited. Two studies grouped open K-wire fixation with other open methodologies without providing subgroup analysis, while the other three studies reported mixed outcomes in small cohort sizes (combined n = 12). Overall, there is insufficient data to draw conclusions on the use of K-wire fixation during open procedures, as compared with other ORIF methods.

Two studies reported ORIF with K-wires and tension banding in a total of 93 patients, as compared with percutaneous K-wire fixation.[16,17] The addition of tension banding aimed to improve anatomical reduction, however, resulted in no difference in patient-reported DASH scores, pain scores, or joint range of motion; it did, however, permit earlier postoperative mobilization. Complications were not reported in these studies; however, this would be a realistic concern given the higher rates of some complications in other open fixation methods.

Subgroup outcomes following ORIF with lag screws were reported by six studies with a combined 110 patients.[18–23] Long-term mean DASH and qDASH scores (range: 0–5.6) are comparable to other percutaneous and ORIF methods; complication rates are also comparable to other ORIF methods, including paresthesia and the need for surgical revision. One study compared the use of ORIF with screws to the use of arthroscopically placed screws, which require less soft tissue dissection.[19] Arthroscopic procedures resulted in comparable qDASH and Kapandji's scores but with a lower rate of complications (9 vs. 60%); however, conclusions are limited by the small number of patients in the arthroscopic group (n = 11). Miniature T-Plate ORIF did not have sufficient distinct data to support subgroup analysis, with only a small number of cases in mixed ORIF patient groups.

Our study demonstrates that closed reduction with percutaneous K-wire fixation results in excellent long-term functional outcomes, comparable to those with ORIF, yet with a reduced risk of significant complications. In some instances, where anatomical reduction cannot be achieved, open reduction may be necessary; the strict threshold for this decision is unclear, however. Some studies suggest the target of a <2 mm intra-articular step deformity to minimize the risk of osteoarthritis; however, there are conflicting results in the literature with some studies finding a correlation between a step deformity >2 mm and increased osteoarthritis, and others finding no correlation.[18,21–23] Furthermore, several studies have found little correlation between the extent of joint arthritis and patient-reported symptoms.[3,9,13,15,22]

Limitations

There are some limitations to the interpretation of our results. First, given the uncommon nature of Bennett's fracture, the current evidence base is predominantly composed of retrospective cohort studies with variable follow-up periods. As it is recognized that joint changes can later become apparent if a fracture is not carefully aligned, future studies should specifically evaluate these patients after several years of follow-up to ascertain whether these late changes correlate with deteriorating patient-reported outcomes. Second, the scope of our study is intentionally limited to all surgical fixation methods; while nonsurgical management is rare due to the instability of Bennett's fracture, it may be appropriate in some circumstances. Finally, present studies have variable design, surgical technique, and outcome metrics; this prohibits meaningful meta-analysis. To enhance the robustness of the conclusions drawn from our study, future research should be conducted through multicenter prospective studies to minimize the risk of bias and to ensure that they are adequately powered.

Conclusion

The optimal management of Bennett's fracture requires fracture reduction and surgical fixation to avoid long-term loss of hand function and quality of life. Closed reduction with percutaneous K-wire fixation should be the first choice surgical method given its excellent, long-term functional outcomes and its low risk of complications. ORIF should be reserved for cases where closed reduction is not achievable; however, the current evidence base does not support one method of ORIF above another.

Conflict of Interest
None declared.

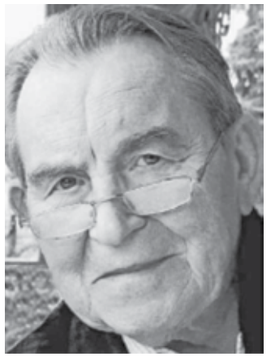
References

1 Bennett EH. Fractures of the metacarpal bones. Dublin J Med Sci 1882;73:72–75
2 Pellegrini VD Jr, Olcott CW, Hollenberg G. Contact patterns in the trapeziometacarpal joint: the role of the palmar beak ligament. J Hand Surg Am 1993;18(2):238–244
3 Griffiths JC. Fractures at the base of the first metacarpal bone. J Bone Joint Surg Br 1964;46:712–719
4 Gedda KO. Studies on Bennett's fracture; anatomy, roentgenology, and therapy. Acta Chir Scand Suppl 1954;193:1–114
5 Rivlin M, Fei W, Mudgal CS. Bennett fracture. J Hand Surg Am 2015;40(8):1667–1668
6 Moher D, Shamseer L, Clarke M, et al; PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Syst Rev 2015;4(1):1
7 Kapandji A. [Clinical test of apposition and counter-apposition of the thumb] (French). Ann Chir Main 1986;5(1):67–73
8 Livesley PJ. The conservative management of Bennett's fracture-dislocation: a 26-year follow-up. J Hand Surg [Br] 1990;15(3):291–294
9 Gedda KO, Moberg E. Open reduction and osteosynthesis of the so-called Bennett's fracture in the carpo-metacarpal joint of the thumb. Acta Orthop Scand 1952;22(1-4):249–257
10 Franchignoni F, Vercelli S, Giordano A, Sartorio F, Bravini E, Ferriero G. Minimal clinically important difference of the disabilities of the arm, shoulder and hand outcome measure (DASH) and its shortened version (QuickDASH). J Orthop Sports Phys Ther 2014;44(1):30–39
11 Li Z, Guo Y, Tian W, Tian G. Closed reduction external fixator fixation versus open reduction internal fixation in the patients with Bennett fracture dislocation. Chin Med J (Engl) 2014;127(22):3902–3905
12 Levy V, Mazzola M, Gonzalez M. Intra-articular fracture of the base of the first metacarpal bone: treatment through a volar approach. Hand (N Y) 2018;13(1):90–94
13 Brüske J, Bednarski M, Niedźwiedź Z, Zyluk A, Grzeszewski S. The results of operative treatment of fractures of the thumb metacarpal base. Acta Orthop Belg 2001;67(4):368–373
14 van Niekerk JLM, Ouwens R. Fractures of the base of the first metacarpal bone: results of surgical treatment. Injury 1989;20(6):359–362
15 Sälgeback S, Eiken O, Carstam N, Ohlsson NM. A study of Bennett's fracture. Special reference to fixation by percutaneous pinning. Scand J Plast Reconstr Surg 1971;5(2):142–148
16 Zhang X, Shao X, Zhang Z, Wen S, Sun J, Wang B. Treatment of a Bennett fracture using tension band wiring. J Hand Surg Am 2012;37(3):427–433
17 Zhang X, Dhawan V, Zhao S, Yu Y, Shao X, Zhang G. Treatment of Bennett fractures with tension-band wiring through a small incision under loupes and a headlight. Phys Sportsmed 2019;47(1):122–128
18 Kamphuis SJM, Greeven APA, Kleinveld S, Gosens T, Van Lieshout EMM, Verhofstad MHJ. Bennett's fracture: Comparative study between open and closed surgical techniques. Hand Surg Rehabil 2019;38(2):97–101
19 Pomares G, Strugarek-Lecoanet C, Dap F, Dautel G. Bennett fracture: Arthroscopically assisted percutaneous screw fixation versus open surgery: Functional and radiological outcomes. Orthop Traumatol Surg Res 2016;102(3):357–361
20 Leclère FMP, Jenzer A, Hüsler R, et al. 7-year follow-up after open reduction and internal screw fixation in Bennett fractures. Arch Orthop Trauma Surg 2012;132(7):1045–1051
21 Demir E, Unglaub F, Wittemann M, Germann G, Sauerbier M. [Surgically treated intraarticular fractures of the trapeziometacarpal joint – a clinical and radiological outcome study] (German). Unfallchirurg 2006;109(1):13–21
22 Lutz M, Sailer R, Zimmermann R, Gabl M, Ulmer H, Pechlaner S. Closed reduction transarticular Kirschner wire fixation versus open reduction internal fixation in the treatment of Bennett's fracture dislocation. J Hand Surg [Br] 2003;28(2):142–147
23 Timmenga EJ, Blokhuis TJ, Maas M, Raaijmakers EL. Long-term evaluation of Bennett's fracture. A comparison between open and closed reduction. J Hand Surg [Br] 1994;19(3):373–377
24 Kamphuis SJM, Greeven APA, Kleinveld S, Gosens T, Van Lieshout EMM, Verhofstad MHJ. Bennett's fracture: Comparative study between open and closed surgical techniques. Hand Surg Rehabil 2019;38(2):97-101
25 Middleton SD, McNiven N, Griffin EJ, Anakwe RE, Oliver CW. Long-term patient-reported outcomes following Bennett's fractures. Bone Joint J. 2015;97-B(7):1004–1006

Acknowledgement:
Full permission is given by the Executive Editor Dr. Sunny Duttagupta, Thieme Medical and Scientific Publishers Private Limited, of the Journal of Hand and Microsurgery, for the republishing this article.
J Hand Microsurg 2021;13:81–88.

Albrecht Wilhelm

21 August 1929 - 24 April 2017



Albrecht Wilhelm was born on 21 August 1929 in Braunau in North Bohemia, Germany. After completing his high schooling in Ansbach in 1948, he enrolled for his medical studies at the University of Würzburg. He completed his medical studies in 1955, and became a lecturer at the Institute of Anatomy at the University of Munich under the directorship of Prof. T. R. von Lanz. His research into nerve anatomy led to a classical article describing the innervation of the joints of the upper limb.

He started his general surgical training in 1957 in the Department of Surgery at the Würzburg University under Prof. W. Wachsmuth. Wilhelm continued his training in hand surgery in 1960 with Prof. Erik Moberg in Göteborg, Sweden, as well as with Prof. Claude Verdan in Lausanne, Switzerland. His interest in the nerve supply of the joints of the upper limb, led to his doctoral thesis which described the famous surgical procedures to denervate the wrist joint in 1964, as well as his venia legendi (habilitation). Painful conditions of the arm always fascinated Wilhelm, especially lateral epicondylites, thoracic outlet syndrome, nerve compression syndromes and Sudeck's dystrophy.

Albrecht Wilhelm was a founding member of the German-speaking Study Group of Hand Surgery, which later became the German Society for Surgery of the Hand. In 1970 he became Professor of General Surgery and Head of the Surgical Department at Ashaffenburg, the teaching hospital of the University of Würzburg, until his retirement in 1994.

In 1992 Prof. Wilhelm was elected President of the German Society for Surgery of the Hand. Apart from his over 100 medical articles and 17 chapters in textbooks, he presented regularly at meetings all over the world. He was honoured with the German "Bundesverdienstkreuzes" in 1989 for his major contribution to medicine, particularly hand surgery.

Albrecht was married to Annemarie and they had two children, son Wolfgang and daughter Andrea. He died on 24 April 2017 at the age of 87 years.

At the 9th Congress of the International Federation of Societies for Surgery of the Hand in Budapest, Hungary 13-17 June 2004, Albrecht Wilhelm was honoured "Pioneer of Hand Surgery"

Yutaka Yabe MD, PhD

b. June 1932

Yutaka Yabe was born on 9 June 1932 in Japan. He did his medical training from 1951 to 1957 at the Keio University School of Medicine, which was followed by an internship in 1957 and 1958 at the Keio University Hospital obtaining his MD degree. From 1958 until 1962 he did postgraduate medical courses at the same institute, followed by a Clinical Residency in Orthopaedics until 1966. In 1964 Yabe obtained his PhD degree based on biochemical research on the longitudinal growth of tubular bone using S-35 isotope tracing. Yutaka Yabe did a Clinical Hand Surgery Fellowship with Dr. Lee Milford at the Campbell Clinic in Memphis, Tennessee, USA in 1969 and 1970.

In 1966 Yabe became Assistant Professor, and in 1972 Associate Professor at Keio University Hospital School of Medicine, which was followed in the same year with a promotion to Professor and Chairman of the Department of Orthopaedic Surgery at the Fujita Health University School of Medicine until 1986. He then took up the Professorship and Chairmanship of the Orthopaedic Department at his old alma mater until 1998, when he received Emeritus Professor status. Yabe was also Director of the Keio University Hospital from 1991 until 1995, as well as of the Tachikawa Hospital from 1998 to 2003. After his retirement from the Keio University in March 1998, he regularly still attended academic meetings.

Prof Yabe has published well over 300 medical articles on numerous topics. He has been president of several medical societies, including the Japanese Orthopaedic Association, the Japanese Society for Surgery of the Hand, the Japanese Society of Reconstructive Microsurgery, the Japanese Peripheral Nerve Society, the Japanese Elbow Society, and the Japanese Society of Clinical Sports Medicine. In 1998 he received the Keio-Gijuku Award.

For his exceptional contribution to hand surgery, Yutaka Yabe was honoured "Pioneer of Hand Surgery" by the IFSSH at the 9th Congress in Budapest, Hungary in June 2004.

Conduct a remote hand therapy course in times of the Covid-19 pandemic

Introduction

With the advent of the corona virus pandemic, many teaching activities have come to a halt, especially activities that require travel. This meant that a 5-day course planned with two therapists from Switzerland traveling to Sri Lanka to teach therapists hand therapy could not occur. However, thanks to the innovation and cooperation of three therapists, the course did take place! The challenges and solutions for making this happen are described here.

Initial plan

Our initial plan to teach a 5-day workshop in Colombo, Sri Lanka in January 2021 was thwarted by Covid-19. The uncertainty about the course of the pandemic and the sudden travel restrictions made travel to Sri Lanka not possible. Since planning this course was already quite advanced, we did not want to simply back out and disappoint our colleagues in Sri Lanka. Since the participants in Sri Lanka had internet access, it was possible to adapt and take on the challenge of planning and teaching an online course instead.

Connections

At the 2013 International Federation of Societies for Hand Therapy (IFSHT) Congress in New Delhi, India, Sarah Ewald met and kept in touch with the Sri Lankan delegate Kalyani Weerasinghe OT, BSc. Sarah's work colleague Birgit Loos went on vacation to Sri Lanka and also visited the clinic at which Kalyani works. Kalyani then invited Sarah and Birgit to conduct a course in hand therapy in Sri Lanka. A 5-day course covering the fundamentals of hand therapy was initially planned and scheduled for the last week in January 2021.

About the course

In planning this course, we relied heavily on our local connection, Kalyani. Of course, we also needed to know more about the needs and requests of the attendees. An instrument such as the "Hand Therapy Assessments for Use with International Technicians" (HTAIT) (Vargo 2018) might have been helpful. Given that we had no direct access to the participants, we were concerned that asking potential participants to complete a 40-question test might discourage them from participating. Instead, we created an online information needs questionnaire combined with a registration form in 'Google Forms'. These documents inviting participants to sign up for this free online course were mailed to Kalyani, who then distributed these to therapists in Sri Lanka. The Therapists then registered for the course and provided information what they would like to get from this course. They also rated their familiarity with a variety of hand therapy topics.

Twenty-five occupational therapists registered for the course; 48% were women, and 52% were men. Their experience with hand therapy was varied: 16% had no experience, 32% 1-2 years, 32% 3-5 years, and 20% reported six or more years' experience in hand therapy. Of the group, only 8% indicated that 100% of their caseload consisted of patients with hand conditions. Regarding hand therapy topics, the responses were variable, and it appeared that all the topics listed were relevant to the participants.

The information gained aided us in preparing for the course. Preparations included identifying common topics, creating a course schedule, verifying with Kalyani that the proposed dates were acceptable, eg did not conflict with a national holiday in Sri Lanka. Two-hour long sessions on Wednesdays seemed to be the best for both their and our schedules. A subscription to Zoom was purchased. An online resource center was set up for the course, using the 'groupspaces.com group management program', with a free account. From this point on, emails with the participants would take place through the 'groupspaces.com' account. Handouts, learning materials, links to relevant YouTube videos, and assignments would be uploaded there for both students and instructors to access. A virtual learning center was created (Figure 1).

Figure 1:
Participants of the Zoom online course

Participants were sent a schedule with the course dates, the times of the course, login information for the Zoom classroom and the topics: anatomy and physiology, evaluation, treatment of edema and scars, management of distal radius fractures, CMC1 arthritis, and common compression neuropathies. The first online session with 24 occupational therapists from Sri Lanka took place at the end of June 2020. The course spanned three and a half months, consisting of six sessions with 2-4 weeks intervals. Global times of instruction were chosen to suite both lecturers in Switzerland and the participants in Sri Lanka.

The sessions included PowerPoint presentations, question and answer sessions, video sequences, and hands-on activities. The participants worked on assignments in small groups and posted them online before the next session. The assignments focused on elements of evaluation and patient education. Upon completion of the course, our aim was that participants had created an evaluation form and relevant patient education materials for use in their clinics.

The first assignment asked participants to draw the anatomy of the hand on a latex glove (Figure 2A and B). Other instructors have utilized this strategy to teach anatomy (Thacoor et al., 2019; Persson et al., 2019). A recent study found that using a 3-dimensional glove enhanced the anatomical knowledge of students (Lisk et al., 2015).

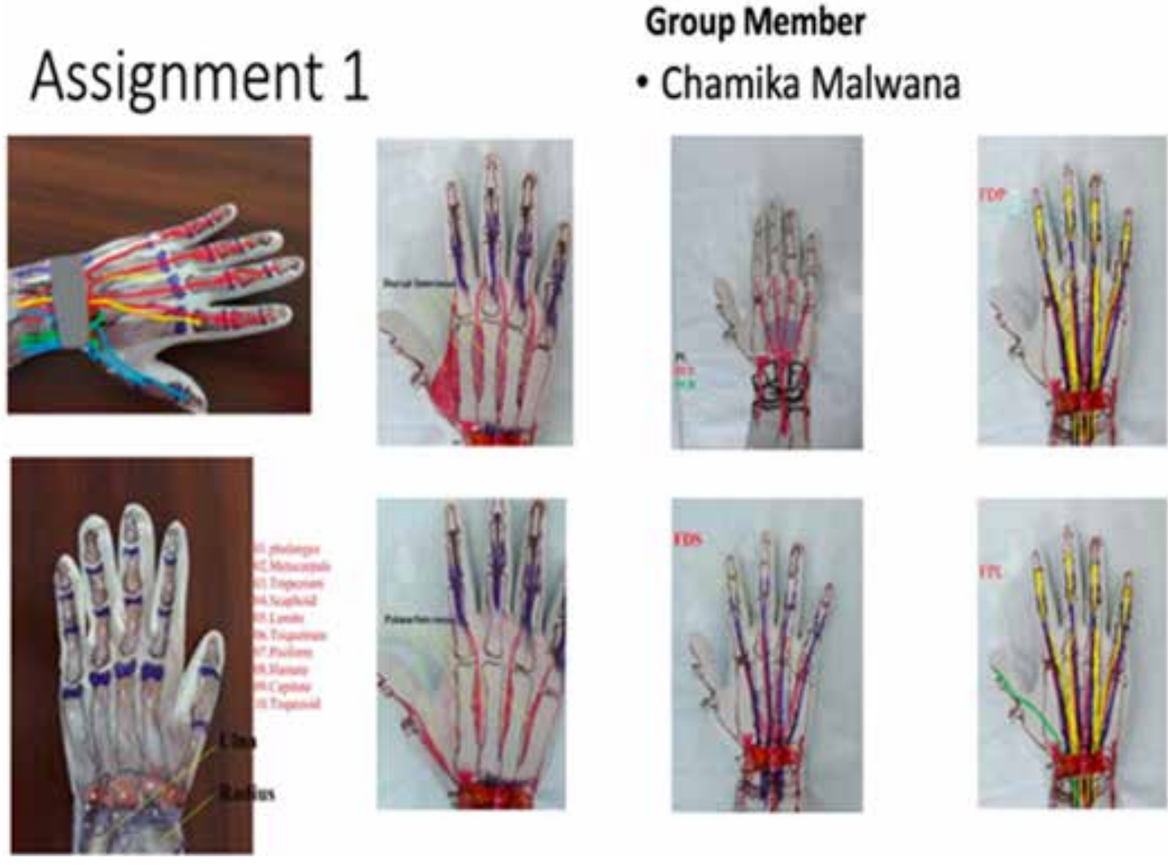
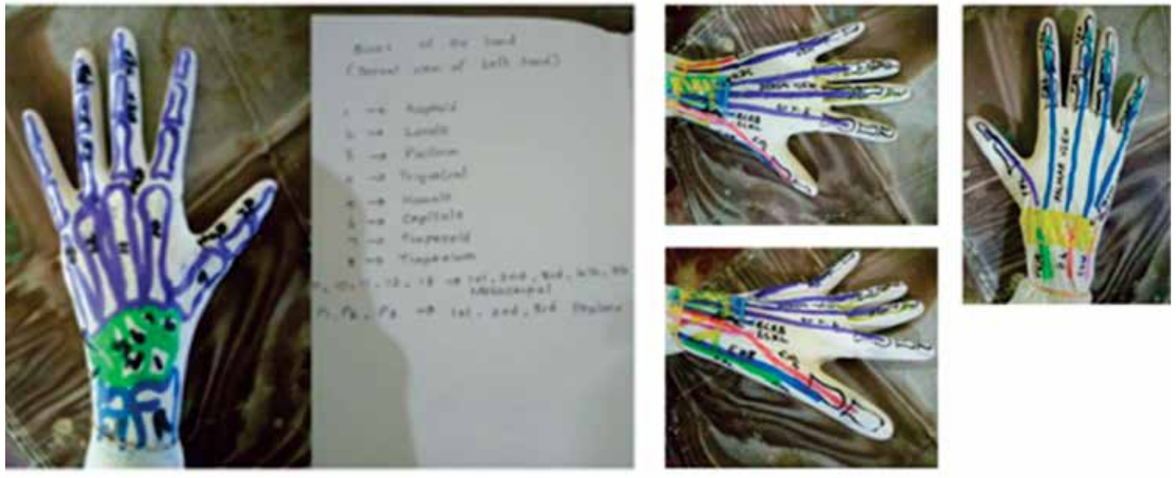


Figure 2A and B : Assignment 1 : Anatomy gloves



In the following sessions, the assignments were reviewed with the group. Participants were given the option to do the assignments in their language, but to our surprise, all assignments were completed in English.

Ongoing instruction vs. a face-to-face course over a few days

Teaching practical skills virtually such as goniometry or palpation of the carpal bones was challenging. However, we recognized that the online course, spread over several sessions with 2-4-week breaks, offered some distinct advantages (Figure 3).

Example of Assessment Form

Date of Assessment
Clinic No OT No

1. Demographic Data

Name Date of Birth
Age Civil Status
Gender Telephone No
Address Onset of Injury
Occupation Affected hand
Dominant hand
How was the injury happened
Medical interventions done so far?

2. Pain Evaluation

i. . Type of pain: Burning ☐ Sharp Stinging ☐ Superficial ☐ Deep ☐

ii. When / Duration: Day ☐ Night ☐ When using hand ☐ Constant Intermittent ☐

Wong-Baker FACES® Pain Rating Scale

0	2	4	6	8	10
No Hurt	Hurts Little Bit	Hurts Little More	Hurts Even More	Hurts Whole Lot	Hurts Worst

3. Scar Evaluation

i. Type of the Scar:

Hypertrophic ☐ Keloid ☐ Contraction ☐ Adhesion ☐ Hypersensitive ☐

ii. Observations

Color/ Pigmentation _____ Thickness _____

Length _____ Height _____

4. Grip Evaluation (Poor/ Below Average/ Average/ Above Average/ Good)

Gross Grip: Cylindrical _____ Finer: Grip Pincer _____

Spherical _____ Tripoid _____

Hook _____ Lateral key _____

5. Oedema Evaluation

Circumference of oedema: Day 1 ☐ Day 2 ☐ Day 3 ☐ Day 4 ☐ Day 5 ☐

6. Range of Motion Evaluation

Wrist	Day1	Day2	Day3	Thumb	Day1	Day2	Day3
Flexion MCP Flexion				MCP Flexion			
Extension MCP Extension				MCP Extension			
Ulnar Deviation Abduction				Abduction			
Radial Deviation Adduction				Adduction			
Index Finger IP Flexion				IP Flexion			
MCP Flexion IP Extension				IP Extension			
MCP Extension Ring Finger				Ring Finger			
MCP Abduction MCP Flexion				MCP Flexion			
MCP Adduction MCP Extension				MCP Extension			
PIP Flexion MCP Abduction				MCP Abduction			
PIP Extension MCP Adduction				MCP Adduction			
DIP Flexion PIP Flexion				PIP Flexion			
DIP Extension PIP Extension				PIP Extension			
Middle Finger DIP Flexion				DIP Flexion			
MCP Flexion DIP Extension				DIP Extension			
MCP Extension Little Finger				Little Finger			
MCP Abduction MCP Flexion				MCP Flexion			
MCP Adduction MCP Extension				MCP Extension			
PIP Flexion MCP Abduction				MCP Abduction			
PIP Extension MCP Adduction				MCP Adduction			
DIP Flexion PIP Flexion				PIP Flexion			
DIP Extension PIP Extension				PIP Extension			
DIP Flexion							
DIP Extension							

Figure 3: Hand Evaluation Assignment: Assessment Form.

Incorporating assignments into the course increased participant engagement and facilitated relevancy to their practice (Figure 4). In turn, the assignments allowed us to evaluate the learning and knowledge levels of the participants. As a result, we could design the subsequent sessions to meet learning needs. The participants had time to process what they had learned and to apply this in practice. We had the opportunity to provide students with constructive feedback on their assignments. In turn, we observed a growth in knowledge as demonstrated in their assignments during the course (see image below). In a short intensive course onsite, this would not have been possible.

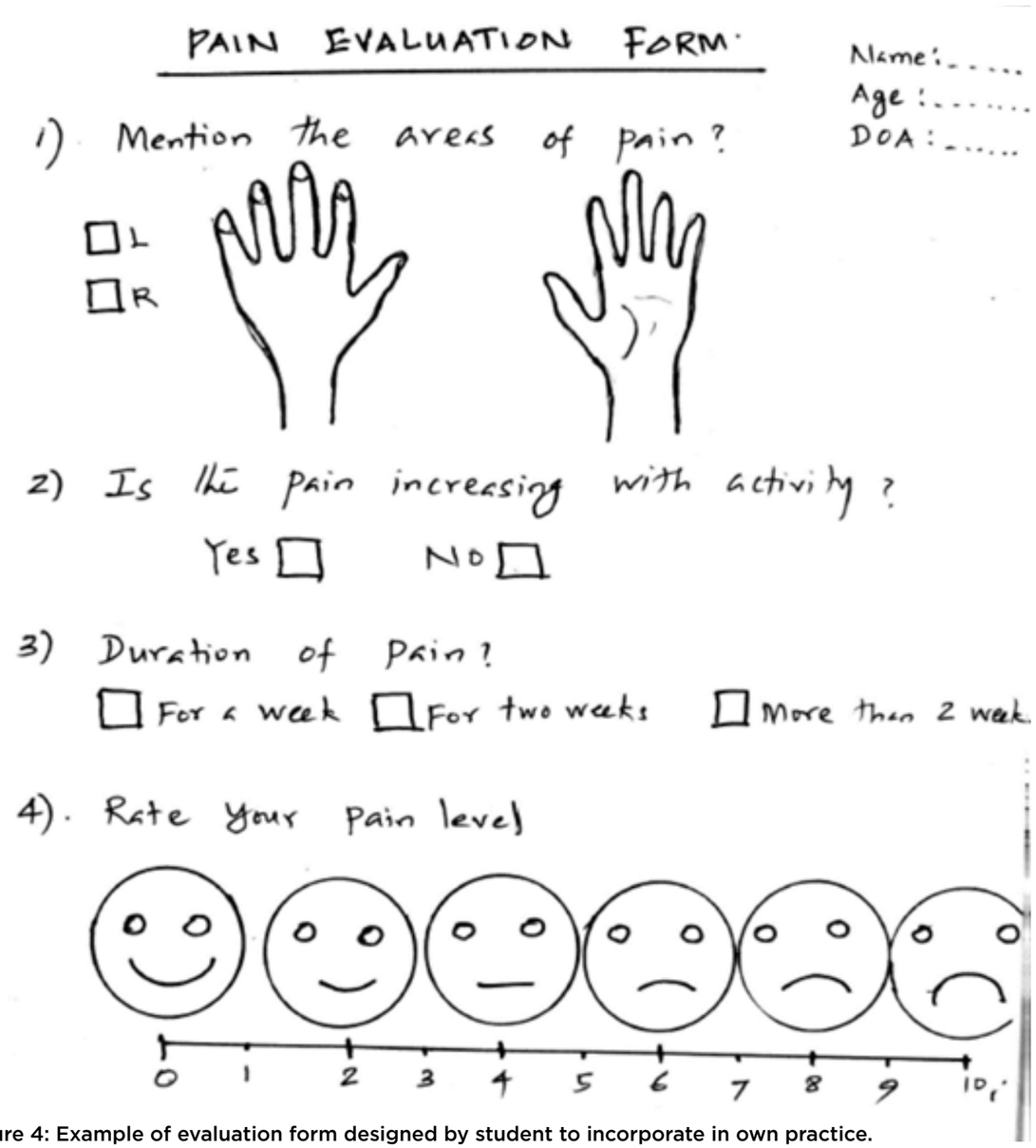


Figure 4: Example of evaluation form designed by student to incorporate in own practice.

Instructional strategies

As English was not the native language of the participants, we endeavored to speak slowly and clearly. After the initial session, we designed the subsequent sessions to alternate the speakers several times to make it livelier for the participants. We also included more videos and hands-on activities to facilitate the transfer of information (Figure 5).

Figure 5: Video sequences

Challenges

As participants' cameras were switched off most of the time, it was not always easy for us to gauge if the session's content was easily understood and/or relevant. Use of the chat function in Zoom meant participants who were primarily on smartphones would not be able to see the presentation; thus, participants did not use the chat, and they rarely turned on their microphone to ask questions. To gauge comprehension, we needed to have more input from participants during each session. We implemented the use of poll questions, a function available in Zoom. We created several poll questions for each session. We quickly discovered that participants only answered poll questions after they were made aware that their responses were anonymous!

Remaining connected to the Zoom platform was a challenge that many participants faced. Many of them had to reconnect often or change to a different device midway through a session. We asked ourselves: would we have been so dedicated, given this situation? We admired their tenacity and obvious desire to learn.

Upon conclusion of the course

We asked students to complete an online evaluation of the course. Fifteen participants responded: 93,3% rated the course as very good, 60% percent felt that six sessions over 3.5 months were ideal, 93,3% felt the course learning materials were comprehensive, 73% felt that the amount of time required to complete assignments between sessions was justified as the assignments were helpful in clinical practice. All students indicated that they were able to access learning materials on the 'groupspaces.com' website. Some comments were as follows: "The hand therapy workshop was very comprehensive. Ms. Sarah and Ms. Birgit you have done a great job. Explanations were very clear. Both of you refreshed our knowledge regarding anatomy of the hand, assessments and occupational therapy approach for hand injuries." "I learnt about new techniques in hand therapy." "It was a great opportunity to increase practical knowledge and being updated".

Financial implications

Both instructors volunteered their time to prepare and teach the course. A zoom pro account was utilized, and instructors paid the fees for this account. A free online resource center was created using 'groupspaces.com'. There was no fee to participate in the course for participants, but they did need to have access to the internet, which for some of them was a relatively large expense.

Conclusions

When traveling to a country is not feasible, teaching colleagues about hand therapy does not have to come to a halt. In this case, the Covid-19 pandemic pushed us all to look for alternative solutions instead of planned onsite courses. This first attempt at delivering online education for therapists was not without challenges, but it was possible! Finally, the initial course described in this article was completed, but at the request of the participants, it continued in 2021, with additional instructors from Canada, the USA, Sweden, the UK, and the Netherlands volunteering their time and expertise. Additionally, the group of participants has been expanded to include therapists from nearby Bangladesh, also a connection made through IFSHT.

A local partner who can facilitate connections in a country and provide feedback about cultural habits, knowledge levels, and specific information about ideal dates and times is essential. The willingness of instructors to donate their time, do careful preparation, and adapt their instructional style to an online format is also essential. As Kruger and Chowers (2020) have pointed out, delivering medical education through an online platform brings the cost of education within reach of many more medical professionals, which allows a more extensive and more diverse group of medical professionals to access educational offerings. Our experience demonstrates that an online hand therapy course for therapists is cost-effective, can be delivered effectively, is environmentally friendly, and supports the development of hand therapy around the world.

References:

1. Vargo CR. Hand Therapy Assessments for Use with International Technicians (HTAIT). Journal of Global Health Reports. 2018;2:e2018001. doi:10.29392/joghr.2.e2018001
2. Tharoor A, Othman D, Jivan S. Disposable gloves as an educational tool in teaching hand anatomy. Indian J Plast Surg 2016;49:287-8. DOI:10.4103/0970-0358.191328
3. Persson M, Sparl B, Mee S, McKee P, Katz D. An Innovative Approach to Teaching and Learning Hand Anatomy for Therapists, Students and Patients. Poster Presented at the congress for the International Federation of Societies for Hand Therapy, Berlin, June 2019
4. Lisk K, McKee P, Balkwill A, Agur AM. Student perceptions and effectiveness of an innovative learning tool: Anatomy Glove Learning System. Anat Sci Educ. 2015 Mar-Apr;8(2):140-8. DOI: 10.1002/ase.1459. Epub 2014 Apr 22. PMID: 24757171.
5. Kruger, JM & Chowers,I. The ethical advantages of video conferencing in medical education, Medical Education Online,2020; 25:1, DOI: 10.1080/10872981.2020.1787310

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ifsht
International Federation of Societies for Hand Therapy

To provide global networking and educational opportunities to develop and enhance the practice of hand therapy

UPDATE

www.ifsht.org | info@ifsht.org JULY 2021

IFSHT is excited to introduce their new quarterly newsletter namely REACH. This new publication aims to collate Research, Education, Achievement and Countries (Clinicians) in Hand and upper limb therapy around the world. The first issue was published in May 2021 and a link to it can be found at https://ifsht.org/publications. Future issues will also be archived here.

Each issue presents a list of pertinent recent research in hand therapy. In the July 2021 edition there is also a profile of a study from the Netherlands which examined if aspects of the patient's mindset were associated with outcome following carpal tunnel release (CTR).

Each issue of REACH will provide readers with an informative article on different types of research evidence and how to make informed decisions from these. In the July 2021 issue Mia Erickson, a CHT from Midwestern University, discusses Level 1 types of research evidence and what to consider when interpreting or choosing different study designs.

At the 2019 IFSHT Triennial Congress, there were a number of recipients of the Lifetime Achievement Award. In the July 2021 issue of REACH, we profile two of those recipients, Adiela Estrada and Lynne Feehan.

In this current issue we highlight Debbie Larson's work on the effectiveness of health coaching and mindfulness within Hand Therapy programmes. Debbie is an Accredited Hand Therapist and a Mindfulness Based Cognitive Therapy (MBCT) and Mindfulness Based Stress Reduction (MBSR) Teacher. She highlights the enhancement of her own skills to support patients especially those with psychosocial risk factors within her role as a Hand Therapist.

Each issue will provide a spotlight on a different IFSHT member society. In this issue learn more about the Polish society.

In 2020-2021, the world faced an unprecedented year of disruption due to the COVID 19 pandemic. We saw organisations display creative approaches to continue to meet the aims and objectives of their organisations. The committee overseeing the British Association of Hand Therapy (BAHT) offered the 2020 BAHT annual conference 100% online and free. Read the July issue of REACH to read more on this event.

ifsht.org/publications

VOLUME 1, No.1 – APRIL 2021

REACH

Brought to you by: ifsht

Research, Education, Achievement and Clinicians in Hand and Upper limb therapy around the world.

The Evaluation of a Child

Introduction

In March 2020, I received a kind invitation from Dr. Chetan Patel to speak at the annual South African Society for Surgery of the Hand (SASSH). The meeting was slated for February of 2021 in Durban, South Africa. I promptly agreed and then the world changed. Covid-19 ravaged across the globe and all travel/meetings were cancelled. Instead of travelling across the globe to visit friends and colleagues, meetings were relegated to Zoom and Webinars. The SASSH presented a webinar entitled, "Congenital Hand Differences - Pearls of Wisdom from 3 Masters." The panel included Kerby Oberg MD, Neil Ford Jones MD, and myself. Chetan asked us to present pearls of wisdom gleaned over our careers caring for kids. Covid-19 gave us time to recharge and reflect on life's learning lessons. I listed 12 pearls of knowledge learned over 25 years of caring for children at Shriners Hospitals for Children. Professor Ulrich Mennen, editor of the IFSSH Ezine (International Federation of Societies for Surgery of the Hand), thought the 12 pearls would be helpful for those physicians and therapists who are not experienced in dealing with kids on a regular basis.

Pearl #1 Know Your Enemy and Be Prepared

The examination technique and the props employed vary with the age of the child. An infant responds to tactile stimulation to elicit movement. For example, stroking the back of the hand will provoke wrist extension. Primitive reflexes are also useful when examining an infant. Reflexive grasp (a.k.a. palmar grasp reflex) is present until about 5-6 months of age. Simply placing your finger in their palm elicits grasp. This is a reliable test for lower trunk (C8, T1) function via activation of the finger (flexor digitorum profundus) and thumb (flexor pollicis longus) flexors.

A two to three year old is more challenging to examine. Their mood fluctuates daily and their participation varies with their temperament. The examination room should be entered with caution. Abrupt entrances are scary to the two to three year old and should be avoided. A slow and casual arrival is less threatening. One should also enter the room armed with age appropriate toys to facilitate participation. Stickers and Matchbox® cars are our favorites as they are universal crowd pleasers.

Figure 1: A box of toys filled with colorful interesting objects of different shapes and sizes is used to assess small and large grasp patterns. (Courtesy of Shriners Hospital for Children, Philadelphia.)

A variety of options are necessary to gratify each child. Once the child has made his or her selection, observe how they peel the sticker off the back and how they unwrap the Matchbox® car.

Slowly build trust and rapport with the child, do not assume you are going to win the battle. Subsequently, we introduce our box of toys filled with colorful interesting objects of different shapes and sizes to assess small and large grasp patterns (Figure 1).

Figure 2: Motion is assessed via a gradual incremental reach. (Courtesy of Shriners Hospital for Children, Philadelphia.)

Figure 3: Sticker test to assess forearm rotation. (Courtesy of Shriners Hospital for Children, Philadelphia.)

For the assessment of range of motion, we use the "ocular" goniometer as this observation avoids any direct arm manipulation. Motion is assessed via a gradual incremental reach (Figure 2).

Simply holding the object fully overhead and asking the child to reach will result in defiance and disinterest. Forearm movements are the most difficult to prompt and measure. We use the sticker test (Figure 3).

For supination, we place a sticker on the palm and passively position the forearm in pronation while holding the elbow at 90-degrees and against their side. The child is instructed to show us the sticker, which requires forearm supination. For pronation, we place the sticker on the back of the hand and position the forearm in supination.

The disgruntled adolescent also represents a challenging population to examine. The adolescent can be equated to a two-year old with hormones. Occasionally, you can reason with the adolescent by enticing them to participate and cooperate quicker to ensure an expedient departure. This tact may be effective as neither one of you want to be there during the uncomfortable exchange.

Pearl #2 Examine the Other Side

The majority of congenital differences, brachial plexus palsies, and injuries involve one side leaving the contralateral side unaffected. Therefore, an easy assessment of compliance begins with the normal side. During the examination, we frequently go back and forth to assess whether the child has stayed engaged.

Pearl #3 Use Two Hands in Surgery and in the Office

We teach our residents and fellows that surgery is a two-handed sport requiring the simultaneous use of both hand at all times. Similarly, the examination of the child requires both hands (Figure 4). Holding two toys or stickers, encourages the use of both hands and provides an ocular assessment of impairment. At times, one hand can gently hold the unaffected side from engaging in the activity (mild constraint therapy), which forces the child to engage their affected side into reach and prehension.

Figure 4: The examination of the child requires both hands to engage both limbs. (Courtesy of Shriners Hospital for Children, Philadelphia.)

Pearl #4 Listen, Listen, Listen

Physicians do not listen well. Ernest Hemingway said, "When people talk, listen completely. Most people never listen." We teach our trainees that the patient and/or their family is always telling you something, but you must listen to glean the information.

We have learned oodles of useful information by simply listening. This learned information has allowed us to better care for patients with similar diagnoses.

Pearl #5 Get Down to Their Level

Children are intimidated by persons standing over them. Get down to their level means sitting on a stool or sitting on the floor. Our office has rolling stools, standing stools to sit on, and clean floors.

Our examination tables raise and lower to facilitate an appropriate height to examine a sitting child (Figure 5).

Figure 5: Examinations tables that raise and lower facilitate an appropriate height to examine a sitting child. (Courtesy of Shriners Hospital for Children, Philadelphia.)

Pearl #6 No White Coats

No white coats allowed in our office hours. In fact, I do not own a white coat. Most children have been examined or injected by someone wearing a white coat. Rather than explain to the child that you are not that person, just avoid the interaction all together.

Pearl #7 No Sharp Objects

This axiom seams simple but requires some explanation. Sensibility cannot be assessed in an infant. Clinical clues of absent sensibility are finger dryness and lack of pruning in the bathtub.

Sharp versus dull sensibility testing should never be performed in children. The examiner will lose all confidence with the child and the family. There are important clinical signs regarding sensibility. Children avoid using fingers that lack sensation.

During prehension, they will bypass their numb finger(s) and incorporate the sensate fingers into prehension. For example, a delayed median nerve injury will present with the child favoring ulnar grasp using the ring and small fingers. Two-point discrimination is unreliable until the child is between 6 and 8 years of age.

Always inform the child that the two-point discriminator wheel or the paper clip is not sharp before the examination. Always start with the unaffected side and their eyes open. If they seem to be able to participate, try shielding their eyes. If they pass both tests, move to the affected side. If they fail on the normal side, do not waste your time examining the affected side.

Pearl #8 Work with Talented Therapists

Talented therapists are an asset, and their value should not be underestimated. A talented therapist's clinical acumen differs from a surgeon's expertise. The therapists often have a better sense for the patients and their family relationships. Our therapists often help decide whether or whether not a patient and their family is capable of undergoing surgery and participating in the rehabilitation process.

We have learned that certain complex procedures (e.g. index finger pollicization or certain tendon transfers) require a skilled therapist familiar with the initial rehabilitation. Therefore, when a family decides to undergo a complex procedure, they are required to commit to surgery and the initial rehabilitation process at our institution. Typically, the families stay at the Ronald McDonald House and participate in outpatient therapy twice a day

for a week. Subsequently, they are transitioned to their local therapist with specific instructions.

Pearl #9 Examination by Proxy

The parents can facilitate the examination (Figure 6). The child will always trust their mom and dad more than the physician. Engage the parents to participate in the examination, especially children who are untrusting and difficult to examine. The parent can be the giver of the Matchbox or sticker. The physician just needs to be an active observer while instructing the parent and assessing the child's movement patterns.

Figure 6: Examination by proxy incorporates the parents into the child's examination. (Courtesy of Shriners Hospital for Children, Philadelphia.)

Pearl #10 Be Patient, Keep the Examination Short and Sweet

The examination of an infant or child must be short and succinct. On occasion, the child may need a break (e.g., diaper change or snack). Allow the break and then re-engage. Occasionally, the child may require an entirely different environment. The office setting and the sheer number of people may be threatening to the child. These children are relocated to the therapy gym or private treatment room for re-examination.

Pearl #11 Keep the Child Comfortable

A comfortable child can be examined whereas an uncomfortable child cannot. Children are comfortable in various places and positions.

Some require their car seats while others require their mother's laps. I once witnessed Marybeth Ezaki (circa 2002) crawl under a cabinet to examine a child. Do not remove the child from the comfortable environment unless absolutely necessary. Abiding by this pearl, will result in a better examination and enhanced connection with the family.

Pearl #12 Ten Fingers are overrated; A Thumb and a Post will Suffice

This last pearl is not a clinical examination tactic, but rather an observation and discussion point with the family. From a functional standpoint, we do not need ten digits. My previous sports medicine partner had only nine digits and was an extremely facile arthroscopic surgeon. In our practice, function trumps form. Children require a thumb and a post for function (Figure 7A & B).

The mantra that a thumb and a post will suffice guides our treatment strategies. A well-formed functioning thumb and another digit to act as a post will lead to independence in activities of daily living and foster vocational opportunities.

This pearl does not mean you should not have compassion and empathy for the family's loss of the perfect child. In fact, this concept of "function over form" is not discussed during the initial consultation, but waits until the family has adjusted.

Figure 7: Children require a thumb and a post for function. (Courtesy of Shriners Hospital for Children, Philadelphia.)

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IFSSH Harold Kleinert Visiting Professorship

DR STEVEN MORAN: AUSTRALIA, MARCH 2020

It was a tremendous honor to be selected as the first Harold Kleinert Visiting Professor by the IFSSH. Dr. Kleinert is a pioneer and giant of our field, impacting so many aspects of hand surgery. One of his greatest achievements is training so many of the thought leaders of hand surgery today, including our meeting President Tony Berger. Kleinert Hand fellows have always exemplified the creativity and collaboration that have advanced the specialty. The impact of Kleinert hand fellows is far reaching and just one example is Dr. Michael Wood, who has served as one of my mentors since the start of my career. Dr. Wood's research and interest in vascularized bone provided the framework for the research I do today.

It was almost a year ago that I was in Australia, enjoying our time with the members of the Asian-Pacific Federation of Societies for Surgery of the Hand (APFSSH). The COVID pandemic was not the dire reality it is now. The convenors of the APFSSH Congress (Melbourne, March 2020) were kind enough to put my name forward for consideration as the IFSSH Harold Kleinert Visiting Professor. This congress was run in conjunction with the Asia-Pacific Wrist Association, the Australian Hand Surgery Society, New Zealand Hand Surgery Society, and their respective hand therapy societies and associations.

I arrived in Sydney on the evening of the 8th March and met my gracious hosts, Mark Ross and Nicholas Smith. The following day I gave late afternoon lectures on the reconstruction of the distal radial ulnar joint and complex wrist reconstruction to Sydney registrars and fellows. Later that evening, I attended the New South Wales Hand Surgery Association Clinical Meeting, where patients were invited for evaluation by the surgeons and a discussion of treatment ensued.

The discussions surrounding carpal instability were most eye-opening for me as I learned the benefits of new arthroscopic based reconstructions. The session concluded with my presentation on the vascularity of the carpus. That evening, I was hosted for dinner by the Executive members of the New South Wales Hand Surgery Association.

The following day we traveled to Melbourne, where I lectured to both orthopaedic and plastic trainees at the proceedings of the 2020 Australian Hand Surgery Society Registrar Course. Here I reviewed the topic of scaphoid non-union. I also participated in case discussions.

The APFSSH meeting then commenced on the 11th March. The meeting was shortened by one day due to the COVID pandemic, having to close on the 13th. During this meeting I presented sessions run by the Asian Pacific Wrist Association and in general sessions on the vascularity of the carpus, decision making in scaphoid non-unions, pathomechanics of scapholunate ligament injuries, volar capsulodesis for scapholunate injuries, 20 years of experience with PRC and SLAC wrists, revascularization of the lunate for Keinbock disease, local flaps for digital coverage, and 15 years of experience with the Adams-Berger DRUJ reconstruction. I was also involved in four other discussion panels.

In total I gave over 16 talks and panel discussions, but I learned far more than I taught. The highlight of the meeting for me was the meeting gala celebrating both the APFSSH and the Australian Hand Surgery Society. At the conclusion of the gala, I was most humbled to receive an Honorary Membership from the Australian Hand Surgery Society. This honor was made even more memorable as it was bestowed on me by my friend and fellow guitar aficionado, Jeff Ecker.

In retrospect, the events of the past year have emphasized the value of science over conjecture, of inclusiveness over isolation and the benefits of in-person learning. While vast advances have been made to improve remote meetings and we have increased access to many countries who are unable to participate due to distance or finances, humans are social creatures. While the zoom format is wonderful, it can not take the place of coffee break chats, drawing ideas on napkins over lunch and lively discussions over cocktails. These are the places that have often lit the fires of inspiration leading to scientific advancement. I look forward to seeing you all in person in 2021. Thank-you again for this incredible honor.

Steven Moran

Statue of Roman emperor Constantine reunited with its finger after 550 years by Capitoline Museums in Rome

The piece has finally being returned to its rightful position on the hand.(Zeno Colantoni/Musei Capitolini.)

A missing finger from a giant statue of the Roman emperor Constantine has been reunited with the hand it came from, roughly 550 years after being separated.

- The fragment was sent by the Louvre Museum in Paris to the Capitoline Museums in Rome
- The reunification of the finger and hand comes 550 years after they were separated

The 38cm-long index finger was recently sent to the Capitoline Museums in Rome by the Louvre Museum in Paris.

This week the piece was finally being returned to its rightful position on the hand, which sits in the museum alongside the colossal bronze bust of Constantine.

The bronze pieces were originally donated to the Roman people by Pope Sixtus IV in 1471, and the reunification of the finger and hand comes 550 years after they were separated.

It is not known where the fragment of the finger was before it was found again in the collection of the marquis Giampietro Campana, a prominent collector of Roman art, in Paris in 1860.

The finger was discovered to belong to Constantine's hand in May 2018, thanks to a 3D model brought to Rome from the Louvre.

Constantine ruled Rome in the fourth century, and was the first Roman emperor to convert to Christianity.

Of the bronze colossus, only the enormous head and left hand — which is also missing other fragments — remain.

Art Exibit #13

The left index finger reattached. (Picture: Zeno Colantoni/Musei Capitolini)

(Acknowledgement: SunSunday 2 MayMay 2021 at 4:04am, updated SunSunday 2 MayMay 2021 at 11:18pm)

https://www.abc.net.au/news/2021-05-02/statue-emperor-constantine-reunited-with-finger-after-550-years/100110320

Member Society

SRI LANKAN SOCIETY FOR SURGERY OF THE HAND

Sri Lankan Society for Surgery of the Hand

Dr V Swarnakumar

Dr T Beneragama

Dr V Rajaratnam

Dr S Rajasabapathy

Dear Sir,

We announce the formation of the Sri Lanka Society of the Surgery of the Hand (SLSSH) to the Ezine. The society is formed by the amalgamation of surgeons with hand surgery interest from Sri Lankan plastic surgeons and orthopaedic surgeons through their respective associations. The first year has seen number of activities spanning the whole year despite the pandemic. We were able to conduct number of online teaching sessions for trainees as well as hand surgeons. The pinnacle of these was the first annual sessions of the SLSSH.

We were blessed with the presence of two eminent hand surgeons Dr V Rajaratnam (Singapore) and Dr S Rajasabapathy (India) through zoom. They were instrumental in the formation of SLSSH as well. The founder president, Dr V Swarnakumar is the president of the orthopaedic association of Sri Lanka and the founder secretary is Dr Thushan Beneragama an eminent plastic and hand surgeon. We are extremely happy with the solidarity shared by both these keen leaders of our time.

As with regulations we will wait two years to be recognised in to the global platform with hope and ambition to join with you. We know despite this you would help us to take the baby steps to the future cooperation. Lastly, it gives me great pleasure to announce the first issue of our newsletter "Snuff Box".

Painting the future of hand surgery

Theme for 2020


JANUARY 18, 2021 SLSSH

Official newsletter of The Sri Lankan Society for Surgery of The Hand

FORMATION 7/3/2020 COLLABORATION VISION FOR FUTURE

Painting the future of hand surgery

SNUFF BOX

Hand as a symbol of hope

"The movements we make with our hands both reflect our mental processes and help to shape them. Our actions and gestures can affect our mental representations of actions and objects. Human gesture (specifically representational gesture) may provide a unique link between action and mental representation. It is kinaesthetically close to action and is, at the same time, symbolic. In humans, gesture grounds mental representation in action, but there is no evidence for this link in other primates. It can be argued that gesture played an important role in the transition to symbolic thought and language in human evolution, following a cognitive leap that allowed gesture to incorporate representational elements"

Cartmill EA, Beilock S, Goldin-Meadow S. A word in the hand: action, gesture and mental representation in humans and non-human primates. *Philos Trans R Soc Lond B Biol Sci.* 2012;367(1585):129-143. doi:10.1098/rstb.2011.0162

SLSSH

Sri Lankan Society for Surgery of the Ha

Annual Sessions with social distancing

Dr Gayan Ekanayake
Co-Editor
SLSSH

BOLIVIA SOCIETY FOR SURGERY OF THE HAND

ASOCIACION BOLIVIANA DE CIRURGIA DE LA MANO (ABOCIMA)

During 2020 and 2021 due to the Covid-19 pandemic, all in-person scientific activities were suspended in Bolivia. This included the annual Bolivian Congress of Hand Surgery.

However, in order to continue to provide continuing education and support to our hand surgeons, ABOCIMA organised a series of webinars (see announcements below). These webinars included a number of invited presenters from several countries who addressed the most frequent pathologies encountered in our practices. These webinars have been a great success and allowed many participants to join in throughout the pandemic.

We hope that by next year the pandemic will be curtailed to such an extent to make in-person meetings by the ABOCIMA again possible.

Dr Juan Carlos Suarez Lopez
President
Asociacion Boliviana de Cirurgia de la Mano (ABOCIMA)

THE ASSOCIATION OF CHINESE-SPEAKING HAND SURGEONS UNITED

During 2020 and 2021, the two major forums of the Association of Chinese-speaking Hand Surgeons United —the 6th and 7th Jixia Hand Surgery Forums— were held as virtual congresses in October of 2020 and June of 2021. Virtual presentations consisted of original research, course lectures, discussions, case presentations, and educational sessions. The forums drew a large attendance with 5000-6000 online participants mainly from mainland China, and also from Taiwan, Hong Kong and Chinese speaking hand surgeons in other regions.

From late 2020, a new hand surgery lecture series called Nan-Shan Lectures were organized by Jin Bo Tang and Zeng Tao Wang. These regular lecture sessions attracted a great deal of attention from Chinese speaking hand surgeons. Each lecture session was broadcasted online with lively online discussions and attended by around 3000-5000 surgeons. International speakers included David Elliot, Raja Sabapathy, Donald Lalonde, Rohit Arora, Roberto Adani, and others. The topics covered nerve pain, secondary tendon surgery, extensor tendon repair, basal joint arthritis and flap transfers. The lectures featured domestic and international speakers with a discussion period of 20-30 minutes after each main lecture, which usually lasted twice as long! Regional discussion and online education sessions have been carried out regularly through WeChat and Zoom/ VooV conferences.

After a proposal from Jin Bo Tang, the Association initiated an online Chinese language Journal Club. The Journal Clubs are now organized and coordinated by two young hand surgeons, Chao Chen and Jing Chen. Presenters and panelists are from different countries and regions.

A record number of abstracts were submitted from Chinese speaking hand surgeons for the 25th FESSH virtual Congress in September 2020. As a guest society, more than 50 presentations from the Chinese speaking hand surgeons were accepted.

Through WeChat and other online platforms, members of the Association have also been actively involved in other online international education activities. These virtual courses and conferences have now become a well-accepted format of teaching and education by our Association and international Chinese speaking hand surgeons.

Jin Bo Tang
jinbotang@yahoo.com

The scenes of Nan-Shan Lecture series, initiated in late 2020, and held every two months.

AMERICAN ASSOCIATION FOR HAND SURGERY

AAHS Reunites the Hand Care Community in Carlsbad, January 2022!

As the COVID-19 situation continues to improve in the United States and abroad, the American Association for Hand Surgery (AAHS) is forging ahead with plans to reunite the hand care community in Carlsbad, California in January 2022, in person! The last time the Hand Association was together as an organization was in January 2020 at which time we celebrated the AAHS's 50th anniversary year. We are planning for another celebration in 2022, one that wills opportunities to learn as well as reconnect with our community.

The A.A. Hand Association's meeting to be held 11-15 January 2022 at the Omni La Costa in Carlsbad, California will be a celebration of the best education in hand care, bringing together surgeons, therapists, and advanced practice providers, with a program featuring hands-on courses, incredible guest speakers, and extremely high quality panels and abstract sessions. Our guest speakers in January include Scott Kozin, Ramez Naam, Scott Parazynski, Robert Russell, and a special performance by Wael Farouk, Egyptian Pianist. Therapists and APPs are included on each panel to provide the perspective of the full hand care team, and they also have a dedicated program during the meeting.

But in addition to education, the Hand Association has always focused on ensuring a high quality social program as well. We understand that some of the most valuable and the most important conversations happen at the pool after sessions, enjoying a cocktail at the Dinner Dance, during our trivia competition, or at any other opportunity to socialize during the meeting. So while we will enjoy the very best science in our field at the Annual Meeting, we will also enjoy one another's company, reconnect with our colleagues and friends, and spend dedicated time to rekindling our friendships.

We anticipate the 2022 AAHS Annual Meeting will be a very popular event as the community comes together again in person. Housing accommodations at the Omni La Costa in Carlsbad, California will open in September 2021. If you are planning to attend the Annual Meeting, please be sure to book your accommodations right away. The housing website will be available at https://meeting.handsurgery.org in September.

In the meantime, the AAHS is happy to present a number of virtual programs as part of its regular webinar series, as well as a few new programs that may be of interest to you. Our upcoming webinars as part of our annual series include programs on My First Year in Practice: How to Hit the Ground Running (July, 2021), Nerve Injuries, and Pediatrics. Members of the AAHS and/or AAOS receive free access to these programs! The AAHS will also be hosting a Specialty Session on Friday 3 September 2021 as part of the AAOS Annual Meeting in San Diego. The program, organized by Ngozi Akabudike and Glenn Gaston, can be seen online at https://handsurgery.org/education/specialty-day.cgi. As you can see Ngozi and Glenn have confirmed a roster of expert faculty! If you are able to join us, please register at https://www.aaos.org/annual/registration/attendee-registration/. Finally, this summer the AAHS will debut its HAND journal club which will feature interactive sessions with authors and experts as they discuss the most interesting and innovative research in the hand care field. More information will be available soon on the AAHS website and on social media.

Please be sure to follow the Hand Association on social media at @handsurgeryassn (Instagram), @HandSurgeryAssn (Twitter) and @handsurgery.org (Facebook) for the latest information on all of the society's educational programs and other interesting content from AAHS members.
We hope to see many of you in January 2022 in California!

Peter Amadio, MD
IFSSH Delegate, AAHS

Nash Naam, MD
President, AAHS

THE BULGARIAN SOCIETY FOR SURGERY OF THE HAND

The Bulgarian Society for Surgery of the Hand (Bulgarian SSH) missed the regular meetings last year due to the Covid-19 pandemic restrictions.

Many of us went through the disease. We lost one of our colleagues Prof. Plamen Tsekov, a respected hand surgeon and teacher in one of our biggest orthopaedic departments in Sofia.

This June our Society met for first time since 2019 and we were happy to meet each other in person, show scientific presentations and do all the administrative work for Bulgarian SSH. The meeting took 2 days in a small and beautiful village in the middle of the country called Bozhentsi. Besides the scientific part, we had the customary social event in the evening where we had some party time together!

Figure 1: Prof. Plamen Tsekov passed away this spring due to Covid-19 complications after a hip joint and pelvis fracture

We strongly believe that if possible and circumstances allow, all scientific events are best be held in person, no matter the higher financial cost.

The current Executive Committee of the Bulgarian SSH is:
President: Prof. Margarita Kateva
Secretary: Nikola Simeonov
FESSH / IFSSH Delegate: Kalin Dimitrov

Dr Kalin Dimitrov

Figure 2: The village of Bozhentsi - the site of the June 2021 Bulgarian SSH meeting

Figure 3: Members of the Bulgarian Society at the 2021 meeting

Figure 4: Bulgarian SSH members enjoying a meal together
From left to right: Nikola Simeonov – secretary; Ivan Kolchakov member; Kalin Angelov – member; Prof Margarita Kateva - president

Figure 5: Bulgarian SSH members enjoying the return of in-person meetings
Left to right –back: Kalin Dimitrov - FESSH delegate; Bahram Firoozi – member; Nedko Gacov – member; Alexander Fudulski - member and former secretary. front: Kalin Angelov – member; Prof..Margarita Kateva – president; Prof. Pavka Trichkova - retired, former president; Petya Spasova - member

ARGENTINIAN SOCIETY FOR SURGERY OF THE HAND

AACM
Asociación Argentina de Cirugía de la Mano y Reconstructiva del Miembro Superior

ASOCIACION ARGENTINA DE CIRUGIA DE LA MANO Y RECONSTRUCTIVA DEL MIEMBRO SUPERIOR

The global covid-19 pandemic which has been with us for more than a year has caused us to look at various options to continue with educational programs.

The AACM organised a number of online meetings as well as a few successful in-person meetings with a few attendees.

19 NOVEMBER 2020
JEIL MEDICAL Webinar
Analysing wrist and hand osteosynthesis systems
https://www.youtube.com/watch?v=Hc0jZHb3XW0

10 DECEMBER 2020
TRIMED WEBINAR SERIES
Beyond the Classical in Osteosynthesis
https://www.youtube.com/watch?v=SZgCeaACeUk&t=16s

25 - 27 FEBRUARY 2021
Advanced Course in Experimental Microsurgery

4 MARCH 2021
Virtual Clinical Athenaeum
UNUSUAL WRIST INSTABILITIES
https://www.youtube.com/watch?v=DyGXU7hRxIM

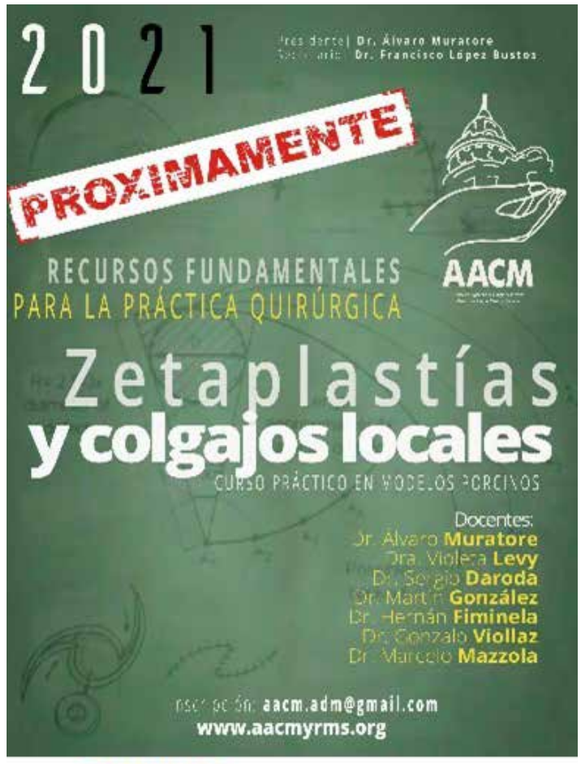
6 MAY 2021
Virtual Clinical Athenaeum
Diagnostic challenges in synovial, muscular and vascular pathology of the upper limb.
https://www.youtube.com/watch?v=pBOE5ABKs0U

3 JUNE 2021
Regional Scientific Conference in Province of TUCUMAN. Discussion of problem cases contributed by AACM members and guests.
Clinical cases https://www.youtube.com/watch?v=wO0hIYXpfjo&t=47s

11 JUNE 2021
47th Updating Course on Hand and Upper Extremity Surgery.
"Traumatic Shoulder and Elbow Pathology".
It was a virtual course with interactive participation by the audience, which was transmitted from our AACM headquarters. We had local speakers.
https://www.youtube.com/watch?v=hQPN9Ek69NM

1 JULY 2021
Participation in the Latin American Federation of Hand Surgery Conference
Case Discussion: Scaphoid Pathology https://www.youtube.com/watch?v=kVZj-5rmQPY\

3 JULY 2021
Z-plasty and local flaps.
Fundamental resources for surgical practices



15 JULY 2021
Virtual Clinical Athenaeums ULNAR CARPAL IMPACTION
15 JULY 2021
Virtual Clinical Athenaeums ULNAR CARPAL IMPACTION

AUGUST
2nd edition Z-plasty and local flaps
Fundamental resources for surgical practices

SEPTEMBER
Bariloche Regional Scientific Conference. Clinical cases.
Discussion of problem cases contributed by AACM members and guests.

Obera, Misiones Regional Scientific Conference.
Clinical cases.
Discussion of problem cases contributed by AACM members and guests.

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23 SEPTEMBER 2021
1st Symposium of the IWAS in Argentina and Latin America
“New trends in Hand and Wrist Arthrosco

Our AACM President for 202 -2021 is Dr. Alvaro Muratore, and the General Secretary is Dr. Francisco López Bustos.

AUSTRIAN SOCIETY FOR SURGERY OF THE HAND

At the beginning of 2015 the two separate disciplines "Orthopedics" and "Traumatology" in Austria have merged. Since this merger only one specialization is recognized with the term "Orthopedics and Traumatology". The Departments which were separate before have now been merged into one Department in all hospitals. In practice it usually happened after the head of one department retires and a new one is elected.

New structures, processes and reforms have to be implemented in the development of such a new specialization in each hospital. This demands a lot of effort of all involved.

Residents are now trained in the treatment of traumatic injuries as well as degenerative, neoplastic and rheumatoid diseases of bones, joints, muscles, tendons and ligaments. This new training agenda amounts to an increase of theoretical knowledge, which has to be acquired within the 6-year training period. It also means an increase in the number and variety of surgical procedures to be mastered.

The residents therefore have to rotate through various orthopedic and trauma sub-specialties including hand surgery for only a short time. However, all of us who conduct hand surgery on a daily basis know, that hand surgery can fill thousands of pages in many books. It is unclear how well-trained the up-coming new doctors will be in hand surgery after their 6-year training period.

After becoming a consultant for orthopedics and traumatology in Austria, there is the possibility to extend the training for another 3 years to specialize in hand surgery which comes with a diploma. This specialization can also be done after becoming a consultant for plastic surgery.

Other Societies, like in Switzerland, one specializes in hand surgery from the beginning for 6 years and finish with the FESSH Board Exam.

By nature, the former trainees will have a broader knowledge in the diagnosis and treatment of all kinds of illnesses and injuries in the orthopedics and traumatology, or of plastic surgery in cases of plastic surgeons. The latter mentioned trainees with hand surgery specialization for 6 years will not have the broader background.

Which of these two ways of specialization is better for the patient, for oneself as a doctor, the society or the hand surgery community is still unclear. Both ways have their pros and cons. The future will hopefully show us the optimal path to become a well-trained and knowledgeable hand surgeon.

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BRAZILIAN SOCIETY FOR SURGERY OF THE HAND (SBCM)

The SBCM Hand Surgery Specialist Examination.
On 18 -19 June 2021 the Brazilian Society for Surgery of the Hand (SBCM), in cooperation with the Brazilian Medical Association (AMB), held an online examination for the obtainment of the title of 'Specialist in Hand Surgery'. Due to the covid-19 pandemic, the traditional in-person evaluation model was changed to an online platform. The first stage was a test of 100 multiple-choice questions and the second was a theoretical-practical test with 12 questions in oral format. "It was a real success, an unprecedented event in the history of the Brazilian Society for Surgery of the Hand", explained Dr. Henrique de Barros Pinto Netto, SBCM's President. The examination reached the whole country which included 35 training programs for residents and was attended by 80 candidates and conducted by 160 examiners.

Event coordination team integrating all the candidates and examiners during the 2021 examination for the title 'Specialist in Hand Surgery'

Board of Directors of the Brazilian Society for Surgery of the Hand and members of the Education and Training Commission (CET)

41st Brazilian, 18th Latin American Congress for Surgery of the Hand and 12th Latin American Congress of Hand Therapy
From 9 - 11 December 2021 an in-person Congress will take place at the Windsor Barra Hotel, Rio de Janeiro. Despite the difficulties and concerns, the SBCM president Henrique de Barros and Jefferson Braga, current president of the South American Federation of Societies for Surgery of the Hand, are committed to organize a safe and quality scientific event for Brazilians and all their Latin American peers, and for successful personal and scientific interactions. The website for registration for this event is https: https://mao2021.com.br/

Dr Henrique de Barros Pinto Netto
– President SBCM
Dr. Carlos Henrique Fernandes
– Delegate SBCM/IFSSH
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Symbol of the Brazilian and Latin American Congress for Surgery of the Hand

ECUADORIAN SOCIETY FOR SURGERY OF THE HAND (ECUMANO)

'Hand Surgery is a great bond in Latin American'

Steve Jobs used to say, "The ones who are crazy enough to think they can change the world, are the ones that do", and we have many crazy people in Latin America.

Latin American Federation of Hand Surgery (FLACM):
Until not long ago, America was represented in the IFSSH by several Federations separated by geographical boundaries, making it more outdated every day. Because of this some Latin American dreamers, united by a common language (or, better described as two languages with a common origin and many similarities) decided to change this.
As crazy as it seemed, they changed the South American Federation of Hand Surgery to become the current Latin American Federation of Hand Surgery (FLACM), a Federation where solidarity prevails by language and by a common past, and not by geographical divisions.

Two years ago, at the South American Federation Assembly, this change was achieved and the process of updating the Federation began. First, it had to include countries from all over Latin America. Dr Jefferson Braga, who acted as the president of this Assembly, with his team, carried out all the necessary work for the IFSSH, the highest body for hand surgery in the world, to recognize the Latin American Federation of Hand Surgery Societies as the representative of this large area of the planet.

The work that the current leadership of FLACM achieved during the current pandemic, enduring many difficulties, for the generation of knowledge throughout the world is worthy of recognition. Because of all this effort, the conferences held virtually have been extremely successful and honor the Latin American union as a strong organization.

"José Maria Rotella" Conferences:
These conferences were named in honor of Dr. Jose Maria Rotella, Argentine born in 1925, who was one of the greatest hand surgeons of Argentina and Latin America. For this reason, after his death in 2020, the Latin American Federation of Hand Surgery decided to name them in his honor. The "José Maria Rotella" Conferences became an online education resource which included all the Societies belonging to FLACM, regardless of their size or length of existence.

The aim of FLACM is to promote the growth and participation of small and young Societies within a larger context without the domination of large and established Societies. This approach enables less known Societies to gain the feeling of membership, the feeling of being part of something bigger, and part of the Latin American Hand Surgery community and of course, of 'World Hand Surgery'.

As the Ecuadorian Society of Hand Surgery, ECUMANO, one of the youngest Societies also belonging to this Federation, has been supporting these conferences as much as possible.

In Ecuadorian literary history, a group from Guayaquil, made up of 5 of the greatest writers of Ecuador, taught us that we can be unique like each finger, but together we can be as strong as a fist. This is how Latin Americans are, each country is unique but united we are as strong as a fist.

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COLOMBIAN SOCIETY FOR SURGERY OF THE HAND

ASOCIACIÓN COLOMBIANA DE CIRUGÍA DE LA MANO (ASOCIMANO)

Difficult times make hope flourish.

During the last year the Colombian Society for Surgery of the Hand (ASOCIMANO) has increased its academic activity exponentially. Numerous seminars (webinars) and virtual courses have been offered allowing the integration with surgeons from Colombia, the Latin American region and the entire world.

At the initiative of ASOCIMANO and with the support of the Societies from Bolivia, Chile, Ecuador, Peru and Venezuela, we have seen the birth of the journal CIRUGIA DE MANO Y MICROCIRUGIA which will be the official journal of our region. The first issue was published at the end of July 2021.

With the hope placed on the advancement of vaccination in Colombia, we have scheduled our annual congress from 25 – 28 August 2021 in the Caribbean city of Barranquilla.
At the end of this year we hope to have the bi-national Colombian-Venezuelan Hand Surgery meeting in the city of Cúcuta. For this meeting we have the financial and academic support of IFSSH.

We hope to shake hands soon!

CANADIAN SOCIETY FOR SURGERY OF THE HAND (CSSH)

On 21 June 2021, the Canadian Society for Surgery of the Hand (CSSH) held its annual meeting — virtually!

This was a first for the CSSH and represents the fifth meeting since the rebirth of the CSSH, formally known as MANUS. There have been many challenges presented by covid-19 - both for the practice of hand surgery and the ways we connect and carry on our academic conferences and meetings. The virtual platform was a new type of meeting for the CSSH and was a resounding success. There continues to be a clear interest in this virtual format of communication reflected not only by the rapidly growing attendance of our meetings, but also the quality and diversity of the content and presentations.

The meeting was attended by over 100 surgeons, fellows, and residents from across the country. The scientific program although truncated to fit the adopted virtual format, reflected the breadth of experience and innovation in upper extremity surgery taking place across Canada.

The program was a mix of high-level research studies, personal experience, anatomical studies, practice tips and tricks and invited lectureships. A memorable invited lecture on hand trauma was given by Dr. Bauback Safa from the Buncke Clinic, discussing his use of innovative ways to utilize venous flow through flaps in devastating hand injuries.

We thank our Executive Committee (President Avi Islur, President elect Heather Baltzer and members David Tang and Donald Lalonde) for all their hard work putting together a successful and fun meeting.

Our first CSSH hand surgery scholarship winner, Blair Peters presented on his fellowship experience in peripheral nerve, hand and microsurgery as the Washington University in St Louis.

This year our annual hand surgery scholarship award went to Kitty Wu who will be completing a hand and microsurgery fellowship at the Mayo Clinic in Rochester. Paladin Labs Inc. continues to sponsor this award and we thank them for their support of the academic pursuits of our graduating residents.

We also thank the CSSH Board for their work and guidance this year: Kevin Cheung, Josh Gillis, Ruby Grewal, Barbara Jemec, Aaron Knox, Blair Peters, Dominique Tremblay and Kevin Zuo.

Next year, the annual meeting will hopefully take place in person! The website is https://www.cssh-sccm.com/ for registration and details. Don't miss this opportunity to visit Canada!

VOLUME 1, ISSUE 1, NO. 1 JUNE 1, 2021

HANDS-ON

Biannual Newsletter
Asian-Pacific Federation of Societies for Surgery of the Hand

IN THIS ISSUE

"A journey of a thousand miles begins with a single step"
- Lao Tzu

Welcome to the inaugural issue of 'Hands-On', the official newsletter of the Asian-Pacific Federation of Societies for Surgery of the Hand (APFSSH). This electronic magazine was born out of a desire by the President and the current executive committee of the APFSSH to have greater communication between member nations and to be able to share information easily among hand surgeons in the region.

The success of this newsletter depends on the involvement and participation of all our members. Please support us by contributing letters, stories, short articles, and by advertising Hand Surgery related products and services.

Stay Safe & Happy Reading.

Editorial Team @ APFSSH Newsletter
Jennifer, Norimasa, Pankaj, Raymar & Sandeep

SBCM
Sociedade Brasileira de Cirurgia da Mão

FEDERACION LATINOAMERICANA DE CIRUGIA DE MANO

Rio de Janeiro
December 09-11, 2021

41st Brazilian Annual Meeting of Hand Surgery

18th Latin American Congress of Hand Surgery

12th Latin American Congress of Hand Therapists

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