



7th – 8th March 2019
Boyne Valley Hotel
Drogheda





Dr Marc Garcia-Elias MD PhD

Doctor Garcia-Elias is a founding partner and staff member of the Institut Kaplan, Hand and Upper Extremity Surgery in Barcelona.

He did his residency in orthopaedics between 1978 and 1983 and he became a specialist in orthopaedic surgery and traumatology in 1983. He undertook his doctorate in 1980 which he finished in 1985 with a “cum laude”. In 1989 he obtained a diploma in Biomechanics of the Locomotor apparatus at the Mayo Medical School, in Rochester, Minnesota (USA).

He also was Secretary General of the FESSH from 2005-2008. He has been Secretary General of the IFSSH (2012-2016). Currently, he is the President-Elect of IFSSH. He is member of various other societies from all over the world.

From 1984 until present Dr Garcia-Elias has given 510 lectures. He has presented 100 scientific presentations at meetings from 1986 until 2016. He has published 3 books and 71 book chapters and 151 peer reviewed papers.

Doctor Garcia-Elias has been honoured with the Emanuel B. Kaplan Award and the Enríquez de Salamanca Award. He has been awarded Emanuel B. Kaplan Award for Anatomical Excellence at the Annual Meeting of the ASSH, 2015. He was honorary lecturer at the Guildal Memorial, in Denmark in 2003; at Lee Ramsay Straub in New York in 2006; he was the International Guest lecturer at 63rd Annual meeting of the American Society for Surgery of the Hand in Chicago in 2008 and in 2009 he gave the Inaugural Bernard O’Brien Oration at the Australian Hand Surgery Society Scientific Meeting in Victoria, Australia, and the E.F. Shaw Wilgis Lectureship in Hand Surgery in Baltimore, USA.

Dr Brian Labow, is a plastic surgeon with a special interest in congenital deformity from the Department of Plastic and Oral Surgery Boston Children’s Hospital.

He completed his residency in Plastic Surgery in Brigham and Women’s Hospital in 2003 and completed a fellowship in Hand and Microsurgery at Beth Israel Deaconess Medical Center in 2004.

Site Director, Harvard Plastic Surgery Residency Program Boston Children’s Hospital 2007-2017.
Director of Adolescent Breast Clinic Boston Children’s Hospital 2010. Course Director Pediatric Plastic and Oral Surgery Harvard Medical School 2012.

Dr Labow has been an Editorial board member HAND since 2008 and is reviewer Journal of Hand Surgery. He has published 15 book chapters and 55 peer reviewed papers.

Thursday March 7th

- 12.30 Registration opens
13.00 Lunch and Trade exhibition

14.00 Free Papers: Chairpersons: P McGinn, R Hanson

14.00	Inception of a regional block anaesthesia service in T&O surgery in the Belfast Trust.	<i>M Dawson, D Shirley</i>	Musgrave Park & Ulster Hospital, Belfast
14.10	What measurement tools have the greatest applicability in a clinical setting to assess function in children that have undergone pollicisation? A systematic review.	<i>F Lett</i>	Connolly Hospital, Dublin
14.20	Ulnar Hemiarthroplasty: A single surgeon experience	<i>C Fox, C Keady, M O'Sullivan</i>	Galway University Hospital
14.30	Extensor tendon repair by zone; technique, rehabilitation and outcomes	<i>Sheil F, Sullivan P</i>	Beaumont Hospital, Dublin
14.40	The role of 3D model printing technology and its application in complex upper limb pathology.	<i>C Keady, C Fox, M O'Sullivan</i>	Galway University Hospital
14.50	Missed diagnosis in paediatric elbow trauma	<i>S Khan, P Harrington</i>	Drogheda Hospital
15.00	Peri-implant fractures of the distal radius and fore -arm	<i>K Mc Garry , D Avalos, F Zabaljaurengui, P Grieve</i>	Blackrock Clinic, Dublin
15.10	The importance of stability in scaphoid non-union and the role of the scaphoid plate	<i>A White Gibson, A Rahman, Bossut, C</i>	St James's Hospital, Dublin
15.20	Trans-fracture retrograde antegrade technique in metacarpal neck fractures	<i>S Ibrahim P Sullivan</i>	Beaumont Hospital

15.30 Coffee and Trade Exhibition

15.50 Trauma Rehab in high achievers. What does the patient narrative tell us.

High energy ipsi-lateral elbow and wrist injury. P McQuillan P Harrington

Multiple tendon and multiple nerve injury. P O Donnell M O Shaughnessy

16.30 DRUJ instability:

M Garcia – Elias

Pathomechanics & Treatment Algorithm

17.30	IHSS Business Meeting	
18.45	Bus shuttle to Highlanes Gallery	Drinks reception 19.15
22.45	Bus return to Boyne Valley Hotel	

Friday 8th March

9.00 **Clinical Case Presentations & Panel Discussion** P Harrington, O Flannery

10.00 Congenital Hand: Apert syndrome B. Labow

10.40 Coffee and Trade Exhibition

11.10 **Hand Therapy Session** **Chairpersons: C Bossut, K Herbert**

11.10	PIPJ Injury. Survey of national practice and the introduction of Traction Splinting to a regional orthopaedic trauma service	<i>D Harmon</i>	Drogheda Hospital
11.35	Report on a case series of PIPJ fractures managed with the Ligamentotaxor	M O'Donnell	St James's Hospital
11.45	The development of a pre trauma clinic, hand therapy service in the ED	P Minchin	Tallaght University Hospital
11.55	M.A.P.S. Therapy	S O' Carroll	St James's Hospital

12.30 **Lunch - Main Restaurant**

13.30 **Arthroplasty Session** Chair:

13.30 DRUJ replacement O Flannery

13.50 Wrist arthroplasty I Mawhinney

14.10 MCP / PIP replacement M Kennedy

14.20 Discussion

14.40 **Mis-leading carpal terminology** M Garcia Elias

What is wrist instability and what is not

15.30 Coffee and trade exhibition



DePuy Synthes

Accuscience

DJO

Lynch Medical

Cover : Gabrielle Ricardielli view of Drogheda 1755, courtesy of Highlanes gallery

Abstracts

Inception of regional block anaesthesia service in T&O surgery in the Belfast Trust

D Dawson: Musgrave Park Hospital, Belfast, D Shirley: Ulster Hospital Dundonald, Belfast

Use of regional anaesthesia is well established in orthopaedics. In the Belfast trust it is predominantly used as an adjunct to improve post-operative pain relief, not as the primary means of anaesthesia. In this study we aimed to assess patient satisfaction following the inception of a regional block anaesthesia service.

Methods A patient experience questionnaire was designed covering areas including, pre-operative waiting times, theatre experience, communication and post-op symptoms. During a six month period from Feb-Aug 2016, 25 patients undergoing day case T&O surgery under GA in the RVH completed the questionnaire. This baseline data established patient satisfaction with GA. A regional block anaesthesia room, headed up by two consultant anaesthetists (fellowship trained in regional blocks), was established in MPH for patients undergoing elective hand surgery. During the six month period between Feb-Aug 2017, 25 patients who underwent regional block were asked to complete the same patient satisfaction questionnaire.

Results Patient reported outcome measures (PROMs) data from the questionnaires showed that for both the GA and regional groups, satisfaction with overall theatre experience and communication with staff was good, with almost all categories scoring over 90% satisfaction. The regional block group did however show significantly improved satisfaction scores in many of the post-operative symptomatology areas including; post-op pain (21.3% improvement), nausea (12.8%), dry mouth (33.3%), shivering (26.9%), hoarseness (26.9%), dizziness (23.1%) and drowsiness (30.8%). Of the regional block cohort, 96% of patients said they would prefer regional anaesthesia over GA if having surgery in future which was amenable to a regional block.

Conclusions Significant improvement in PROMs was achieved with the introduction of regional anaesthesia in the setting of elective hand surgery. Introduction of a regional block service has been successful in the limited area it has been introduced. Other areas of T&O surgery could benefit from this service.

What measurement tools demonstrate the greatest applicability in a clinical setting to assess function in children that have undergone pollicisation? A Systematic Review

F Lett, Clinical Specialist Occupational Therapist

Purpose: The purpose of pollicisation is to improve function; therefore the evaluation of the success or failure of this procedure relies on evaluation of the function and integration of the pollicised digit into activity. However, there is no widely accepted method. The main aim of this study is to investigate what assessment tools have the greatest applicability in assessing function after a pollicisation surgery.

Methods: A systematic review (SR) of primary research was conducted for studies where a functional measure was used to assess pollicisation outcomes. Thirteen databases were searched with a standardised Title and Abstract screening tool and clearly described inclusion/exclusion criteria. Of the 3047 results, 15 studies met the inclusion criteria. The results were analysed with the Instrument Evaluation Framework to investigate the most appropriate assessments that should be used in clinical practice to assess the function of a pollicised digit in the treatment of a congenital hypoplasia. This framework analyses assessment tools under five categories, clinical utility, standardisation, purpose, psychometric properties, and patient perspective. Recommendations for clinical practice are made based on the data analysis.

Results: This SR produced 15 studies that were analysed to extrapolate a list of 33 separate measures. Nineteen measures met the inclusion criteria and were analysed with the Instrument Evaluation Framework. The most commonly occurring assessments were measurements of grip strength, pinch and range of motion. The results demonstrated that children under three are underrepresented with appropriate assessments. The assessments used by each of the 15 studies were largely adult hand assessments with the inclusion of only two validated paediatric assessments,

Paediatric Outcomes Data Collection Instrument and the Manual Ability Classification System. These adult specific assessments were demonstrated to be inappropriate with young children and the evidence does not support their use in clinical practice.

Conclusion: None of the 15 studies analysed used a developmental assessment with their samples. The aim of further research should be to evaluate the validity of established paediatric assessments to assess pollicisation outcomes. The clinical recommendations made by this study are representative of the assessments analysed in existing literature. These recommendations do not fulfil the assessment needs of the younger child, therefore pollicisation assessment needs reconsideration.

(This research study was submitted in partial fulfilment of MSc. Hand Therapy from the University of Derby)

Ulnar Hemiarthroplasty: A Single Surgeon Experience

C Fox, C Keady, M O'Sullivan. Galway University Hospital

Introduction: Ulnar hemiarthroplasty is a procedure performed for pain and stiffness of the wrist due to distal radio-ulnar joint (DRUJ) pathology. The current literature describing the procedure and its outcomes is very sparse. The aim of this study was to assess the outcomes from this procedure performed by a single surgeon in a tertiary referral centre.

Methods: We carried out a retrospective review of all patients who underwent ulnar hemiarthroplasty by a single surgeon over a 4 year period. Patient demographic details as well as pre- and post-operative range of movement and pain scores were collected. Functional outcomes were measured using the QuickDASH questionnaire. All patients gave their full consent to be included in the study.

Results: A total of 7 patients (4 females; 3 males, mean age 52 years (32-71) underwent distal ulnar hemiarthroplasty over the 4 year period. The indication for the procedure was degenerative OA in 4 patients and post-traumatic OA in 3. The mean improvement in range of movement with regard to the pronation/supination arc was 45 degrees. Pain improved an average of 7 points on the VAS scoring system. Overall, the majority of patients were very satisfied with their outcome, with an average follow up of 6 months and mean QuickDASH scores of 31.1. One patient required additional soft tissue release. One patient was lost to follow up.

Conclusion: Performing a distal ulnar hemiarthroplasty preserves both bone stock and ligamentous attachments at the DRUJ. Theoretically, it is a preferable option for young patients in whom a resection arthroplasty or wrist fusion may produce unsatisfactory functional results. Our results show a high patient satisfaction rate with this procedure.

Extensor tendon repair by zone; suture technique, rehabilitation and outcomes.

Sheil F, Sullivan P. Beaumont Hospital, Dublin.

Introduction: Extensor tendon injury is a common presentation to hand surgeons, due to their superficial location on the dorsum of the hand and the natural resting position of the hand during manual tasks. While static splinting remains standard for distal injuries, evidence for early active mobilisation protocols for

proximal zones with greater tendon excursion has emerged in recent years. Many repair configurations are described, with conflicting evidence as to which method is superior. This study aims to review current literature in relation to extensor tendon repair, and also review our experience, examining the relationship between suture techniques, rehabilitation and functional recovery.

Methods: Data was collected on 52 patients who had open extensor tendon repairs performed over a two year period. Patients were followed up longitudinally and assessed for return to work, functional deficit, ongoing symptoms and range of active flexion / extensor lag via remote imaging of the hand. Rehabilitation consisted of immobilisation for zones I-IV and Norwich regimen for zone V and above.

Results: Injuries affected men in 86.5% cases, with sharp laceration being the most common mechanism. Zone V injuries to the first and second digits were the most frequently encountered. Of the 27 patients who completed the follow up questionnaire, 26 returned to work and 19 had no functional deficit. The most commonly reported complication was sensitivity/paraesthesia, in 9 patients. There was no association between injury mechanism, suture technique or zone of injury and functional recovery.

Conclusion

This study has shown satisfactory functional outcomes in patients undergoing extensor tendon repair of all zones in our department.

The Role of 3D Model Printing Technology: Application in Complex Upper Limb Pathology

C Keady, C Fox, M O’Sullivan. Galway University Hospital

As technology evolves, it impacts on the capacities of surgical intervention. 3D printing technology has been used in many different surgical specialties over the last decade, particularly in the realm of prosthetics. It can be useful in aiding both pre-operative planning as well as the creation of patient-specific implants.

We present the case of a child with both bone forearm malunion which resulted in a loss of forearm pronation/supination. Surgical correction of the malunion via osteotomies was performed using patient-specific 3D-printed cutting and drilling guides produced from CT scans of the patient’s forearms. This allowed us to restore his anatomy to as near normal as possible.

3D printing is becoming a more accessible and less costly intervention to add to our surgical armamentarium. In cases of complex trauma, it holds the promise of improving both patient and surgeon satisfaction. However, limitations still exist including availability of this technology in an Irish-setting and manufacturing lead time. We discuss the difficulties in accessing and using this technology as well as a review of the use of 3D printing technology in complex pathology.

Peri-Implant Fractures of the Distal Radius and forearm

K. McGarry³, D. Avalos¹, F. Zabaljauregui¹, P.P. Grieve^{2,3} ¹Hospital Español, La Plata City, Argentina; ² Mater Private Hospital, Dublin 7, Ireland; ³Blackrock Clinic, Co. Dublin, Ireland

We present a case series, documenting peri-implant, Galeazzi type radial fracture-dislocations.

Methods : Three cases were identified from a retrospective review of two hand surgeons practice over two years. Two cases from Dublin (Ireland) and one from La Plata (Argentina). Case notes and imaging were reviewed.

Results: The contributing consultants have had a total of three patients with isolated peri-implant fractures of the distal 1/3rd radius following previous ORIF with low profile fragment specific distal radius plates. Of interest, the three patients all had different types of plates previously inserted. All fractures were at the level of the most proximal screw and screw hole in the plate.

Each patient required operative intervention. This involved removal of the previously inserted metalwork and revision ORIF. The first case was revised using a long Newclip Alians distal radius plate; The second, was revised using a Synthes 3.5 LCP with minor bend and DBX graft; the third case revised using a Styker 3.5 VariAx Recon plate with minor bend plus EIP to EPL transfer. Pre-fracture and post original fracture anatomy was restored and the DRUJ stabilised with additional fixation/repair not required in any case.

Conclusion: Based on our observations we would recommend that surgeons implanting distal radius plates should be mindful of using titanium plates, using perfect surgical technique with avoidance of non-eccentric placement of proximal screw holes and bearing in mind the ratio between drill hole and distal radial diameter. Routine removal of such plates could be considered but economic variables and risk of injury should be taken in to consideration.

The importance of stability in scaphoid non-union and the role of the scaphoid plate.

White Gibson, A¹; Rahman, A²; Bossut, C^{1,3}. Tallaght University Hospital, St James's Hospital

Background: Rates of scaphoid non union are approximately 10%, with union determined by factors including fracture location and pattern, displacement and instability, time to treatment; with vascularity often considered the major contributing factor. We postulated that instability be considered of equal, if not higher importance to vascularity in scaphoid non-union.

Methods: A retrospective cohort study of scaphoid non-unions was performed across two university teaching hospitals over a four year period. Clinical and radiographic data were obtained from medical records of patients who had undergone open reduction internal fixation with screws as well as those who had undergone fixation with scaphoid plates.

Results: 45 cases of scaphoid fixation were identified between 2015 and 2018. A difference of 36.97 weeks in time to presentation to the emergency department between the healed screw group and the non-healed screw group was found to be statistically significant. There was 100% healing in each of the 8 scaphoid plate cases, with a mean DASH score of 14.5; mean extension was found to be 69% of the unaffected side, mean flexion to be 68.3% of the unaffected side.

Conclusion: Our findings demonstrate comparative outcomes for the use of the scaphoid plate in challenging cases of re-do ORIF following failed screw fixation. We also suggest that there is a particular patient grouping that may benefit from index plate fixation in the place of screw fixation in cases with a prolonged time to presentation.

Trans-Fracture Retrograde Antegrade Technique is a reliable method for management of Severely Angulated Metacarpal Neck Fractures

S Ibrahim, P Sullivan, Beaumont Hospital, Dublin

Introduction: Metacarpal neck fractures are common. Many techniques are described for the management of these fractures. Sometimes, the reduction of the severely angulated metacarpal neck fracture is difficult. This presentation deals with the severely angulated Metacarpal neck fractures and aims to describe an easy and simple method for reduction using a Trans-Fracture Retrograde Antegrade Technique.

Methods: The records and radiographs of 28 patients with severely angulated metacarpal neck fractures treated with the described technique were retrospectively reviewed.

Results: Age of patients ranged from 17 to 59 years. At final follow up, all fractures proceeded to bony union and angulation correction. Superficial wound infections were observed in three cases and managed conservatively. Six patients had pain at the wrist due to the k wire which resolved completely after removal of k wire.

Conclusions: Trans-Fracture Retrograde Antegrade Technique is an easy, minimally invasive and reliable fixation technique for all metacarpal neck fractures with dorsal angulation over 60°.

Irish Hand Surgery Society Annual Meeting

7th and 8th March 2019

Feedback / Assessment Form for CPD administrative purposes

Name (NOT compulsory): _____

Place of Work: _____

How satisfied were you with this meeting? (tick one)

Very satisfied

Satisfied

Somewhat satisfied

Dissatisfied

Which session / lecture did you enjoy most and why?

What changes to the annual meeting would you like to see?



Certificate of Attendance

This is to certify that

IMC Number

attended

Irish Hand Surgery Society Annual Conference
in Drogheda
Thursday 7th , Friday 8th March 2019



Paul Harrington

Deirdre Harmon AHT

Deirdre Harmon

RCSI CPD	Category : External	Credits: Thursday – 4 Friday - 6
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Ireland's tallest High Cross which dates from the 9th century is located in the grounds of Monasterboice, 10 minutes north of Drogheda



Thank You