



XVITH FESSH MEETING

THURSDAY 26 MAY 2011

HALL A	SESSION 1: TENDONS/LIGAMENTS - CLINICAL AND BASIC 1
08:00-10:00	Chair: M Ceruso (Italy), S Abrahamsson (Sweden)
08:00 INV 1	Flexor tendon repairs: methods, outcomes, and biomechanical basis Jin Bo Tang (China)
08:30 OPS 1 / A-0142	A comparison of controlled passive motion and early active motion following flexor tendon repair zone 2: a pilot-study MH Eissens, S Romkema, JTW van Loenen, CK van der Sluis (Netherlands)
08:38 OPS 2 / A-0153	What is secondary flexor tendon surgery? CJ Zweifel, H van Dam, D Elliot (Switzerland)
08:46 OPS 3 / A-0159	Bow-string after A1 pulley release of trigger digits: Comparison of open versus percutaneous surgery JP Kim, YH Park (South Korea)
08:54 OPS 4 / A-0269	Risk factors for ruptures after operative treatment of injured flexor tendons S Edsfieldt, M Eklund, M Wiig (Sweden)
09:02 OPS 5 / A-0336	Reconstruction of wrist extension in obstetric brachial plexus palsy using tendon transfer N A van Alphen, M H van Doorn-Loogman, E O van Kooten, J A van der Sluijs, MJPF Ritt (Netherlands)
09:10 OPS 6 / A-0357	Suture of flexor digitorum superficialis improves the results of primary tendon surgery in zone 2. A retrospective study I Z Rigó, M Røkkum (Norway)
09:18 OPS 7 / A-0411	Predicting risk of flexor pollicis longus tendon rupture after volar plating - The role of post operative radiographs D Selvan, D Brown, D Perry (UK)
09:26 OPS 8 / A-0430	The effect of 2, 4, 6, core tendon sutures on flexor tendon excursion through the pulley system; a cadaveric study M Racy, A Simpson, M Nassimizadeh, J Dabis, A Hunter, V Rajaratnam (UK)
09:50 OPS 10 / A-0537	The treatment of Zone 1 flexor tendon injuries using micro bone anchors S Huq, D Boyce (UK)

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HALL C	INSTRUCTIONAL COURSE PART 1: THE TRAPEZIOMETACARPAL JOINT
08:00-10:00	Chair: R Thorkildsen, M Røkkum (Norway)
08:00	Introduction
08:10	Evidence based surgical treatment of trapeziometacarpal osteoarthritis GM Vermeulen (Netherlands)
08:25	Cemented prostheses L de Smet (Belgium)
08:45	Spherical arthroplasty and hemiarthroplasty BD Adams (USA)
09:00	The Arpe prosthesis T Apard (France)
09:10	The Elektra prosthesis TB Hansen (Denmark)
09:30	The Motec prosthesis A Reigstad (Norway)
09:40	Discussion

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HALL D	SESSION 2: SKELETAL DEFECTS, BONE SUBSTITUTES - SEQUELAE FRACTURES - TUMOR/INFECTION
08:00-10:00	Chair: R Szabo (USA), L Van Overstraeten (Belgium)
08:00 INV 2	Calcium Phosphate cement - an alternative to bone graft? Mona Winge (Norway)
08:25 OPS 11 / A-0019	Treatment of Kienbock's disease by shortening osteotomy of the radius - Results in Lichtman stages IIIA and IIIB J C Botelho, S Silverio (Portugal)
08:33 OPS 12 / A-0129	Reconstruction of humeral Diaphyseal nonunions with vascularized fibular graft T Toros, K Özaksar, TS Sügün, M Kayalar, E Bal, F Özerkan (Turkey)
08:41 OPS 13 / A-0199	Comparative study: Internal fixation versus radial head resection in isolated Mason type III fractures of the radial head L Parra, F Andrade, A Bifani, JM Breyer, P Sotelo, S Von Unger, N Thumm (Chile)
08:49 OPS 14 / A-0206	The tri-ligament tenodesis investigated: A faster way of reaching strength and fixation? S P Kamminga, E S J van der Beek, T M Moojen, H Slijper, R Feitz (Netherlands)
08:57 OPS 15 / A-0212	Skin cancers of the hand - an analysis of the management and outcome of 417 lesions S Maciburko, W A Townley, S Matousek, H Giele (UK)
09:05 OPS 16 / A-0226	Microbiologic spectrum in surgically treated hand infections I Justich, H Winterleitner, G Feierl, R Krause, H Koch (Austria)
09:13 OPS 17 / A-0345	Dorsal scapho-lunar stabilization with Viegas' capsulodesis E J Camus ¹ , L Van Overstraeten ² (France)
09:21 OPS 18 A-0364	Kienböck's disease in paediatric and juvenile patients K Kalb, T Pillukat, R Schmitt, K-J Prommersberger (Germany)
09:29 OPS 19 / A-0386	The three-ligament tenodesis for the reconstruction of the scapholunate dissociation: Technique and results A Elgammal, H Erne, B Lukas (Germany)
09:37 OPS 20 / A-0387	Subacute scapholunate instability - Our experience with modified Brunelli procedure M Sousa, R Sousa, A Pereira, A Félix, M Trigueiros, C Silva (Portugal)
09:45 OPS 21 / A-0423	Florid reactive periostitis, bizarre parosteal osteochondromatous proliferation, and Turret's exostosis: A continuum of proliferative periosteal processes in the hand E Calif, J Hakim, S Stahl (Israel)
10:00-10:30	COFFEE BREAK, EXHIBITIONS AND POSTER VIEWING

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HALL A	SESSION 3: TENDONS/LIGAMENTS - CLINICAL AND BASIC 2
10:30-12:00	Chair: Z Szabo (Hungary), E Hagert (Sweden)
10:30 OPS 23 / A-0108	A lactoferrin polypeptide (PXL01) in hyaluronic acid is more effective in reducing adhesion formations after flexor tendon surgery than hyaluronic acid alone M Wiig, K Olmarker, J Hakansson, L Ekström, M Mahlapuu ³ (Sweden)
10:38 OPS 24 / A-0144	Prospective morphologic and dynamic assessment of deep flexor tendon healing in Zone II by high-frequency ultrasound using a new thread-tracking method N Lindenblatt, G Puippe, R Gnannt, D Meyer, G Andreisek, P Giovanoli, M Calcagni (Switzerland)
10:46 OPS 25 / A-0190	Comparison of modified Kessler and Yotsumoto-Dona suture: a biomechanical study on porcine tendons I Z Rigó, J R Haugstvedt, P Ludvigsen, M Røkkum (Norway)
10:54 OPS 26 / A-0194	The effects of 5-fluorouracil on flexor tendon healing by using a biodegradable gelatin slow releasing system: Experimental study in a hen model. MV Karaaltin ¹ , B Ozalp ² , M Dadaci, A Kayrkcioglu, A Kecik, F Oner (Turkey)
11:02 OPS 27 / A-0205	Testing the first extensor compartment for diagnostic purposes: a new specific test for De Quervain tenosynovitis J Goubau, A Van Tongel, P Van Hoonacker, L Goubau, B Berghs (Belgium)
11:10 OPS 28 / A-0248	Our therapeutic strategy for digital stiffness M Esplugas, V Aixala, JA Pradillo, J Anguera, J Cebal (Spain)
11:18 OPS 29 / A-0258	Anatomy, histology and histomorphometrics of the thumb carpometacarpal ligaments E Hagert, J Lee, AL Ladd (Sweden)
11:26 OPS 30 / A-0259	Immunofluorescent analysis of the innervation patterns of the thumb carpometacarpal ligaments E Hagert, J Lee, AL Ladd (Sweden)
11:34 OPS 31 / A-0306	Presentation of an improved novel injection technique that enhances resolution of de Quervain syndrome T Pagonis, P Givissis, K Ditsios, S Varitimidis, A Pagonis, G Petsatodis, A Christodoulou (Grenada)
11:42 OPS 32 / A-0320	An analysis of the tendon holding capacity of six suture loop configurations TV Karjalainen, M He, AKS Chong, AYT Lim, J Ryhänen (Finland)
11:50 OPS 33 / A-0342	Biomechanical comparison of failure mechanism between two suture techniques for tendon transfer surgery V Tsiampa, I Ignatiadis, A Papalois, P Givissis, A Christodoulou, J Fridén (Greece / Sweden)

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HALL C	INSTRUCTIONAL COURSE PART 2: THE FINGER JOINTS
10:30-12:00	Chair: A Waats (UK), M Røkkum (Norway)
10:30	Is there still a place for silicone MCP or PIP implants? I Trail (UK)
10:45	The MCP-SRA prosthesis A Ibsen (Denmark)
10:55	Pyrolytic carbon MCP arthroplasty P Kopylov (Sweden)
11:05	Approaches to the PIP joint. The PIP-SRA prosthesis D Espen (Italy)
11:15	Pyrolytic carbon PIP Arthroplasty M Ceruso (Italy)
11:25	Vascularised joint transfer - an option? G Dautel (France)
11:40	Discussion
HALL D	SESSION 4: CONGENITAL 1
10:30-12:00	Chair: A Nachemsson (Sweden), M Winge (Norway)
10:30 INV 3	Treatment of grade I to IIIA thumb hypoplasia G Dautel (France)
10:55 OPS 34 / A-0268	Treatment of club hands in TAR syndrome: results after radialization versus wrist distraction and radialization W Hülsemann, R Habenicht, M Mann (Germany)
11:03 OPS 35 / A-0328	Indications for toe to hand transfer in children with congenital abnormalities of the hand AV Balashov, SI Golyana, A B Oreshkov (Russia)
11:11 OPS 36 / A-0355	The scare-less fetal skin repair: possible application in congenital deformities at the hand A Leti Acciaro, A Russomando, A Landi (Italy)
11:19 OPS 37 / A-0382	Rotation advancement flap for the correction of narrow web-spaces in congenital hand malformations R Habenicht, M Mann (Germany)
11:27 OPS 38 / A-0420	Evaluation of ulna lengthening in radial club hand P Czarnecki, M Redman, L Romanowski (Poland)
11:35 OPS 39 / A-0431	Fingers reconstruction for children with congenital abnormalities by toe to hand transfer SI Golyana (Russia)
11:43 OPS 40 / A-0509	Outcome of flexor digitorum superficialis opponensplasty for type II/IIIA thumb hypoplasia SER Hovius, M de Kraker, RW Selles, JM Zuidam, HM Molenaar, HJ Stam (Netherlands)
12:00-14:00	LUNCH SERVED IN THE EXHIBITION, POSTER VIEWING

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HALL A		SATELLITE SYMPOSIUM (Lunch box available)
12:15 - 13:45	Pfizer	Innovating the treatment of Dupuytren's contracture M Ceruso (Italy) , Z Szabo (Hungary), C Leclercq (France), L Hurst (USA), J Dias (UK)
HALL C		SATELLITE SYMPOSIUM (Lunch box available)
12:15 - 13:45	DePuy	Ligamentoplasty on Wrist InstabilityMP and PIP Joints Arthroplasty M Merle
HALL A		SESSION 5: PERIPH NERVES, PLEXUS 1
14:00-15:30	Chair:	A Bishop (USA), LE Myrseth (Norway)
14:00 INV 4		Spinal cord surgery restores motor and sensory function in patients with brachial plexus avulsion injury T Carlstedt (UK)
14:30 OPS 41 / A-0075		Secondary thoracic outlet syndrome in patients with clavicle pathology M Kapickis, E Lavrinovics, U Krustins, K Verdins (Latvia)
14:38 OPS 42 / A-0138		Cross-sectional area of neural fascicles as a guideline in neural transplantation surgery in the upper extremity P Nedeljkovic, M Bumbasirevic, V Bumbasirevic, V Bascarevic, N Ostojic (Serbia)
14:46 OPS 43 / A-0273		The relationship of limb hypoplasia in obstetrical brachial plexus palsy with injury severity, surgery, recovery and growth S Maciburko, H Giele (UK)
14:54 OPS 44 / A-0344		Nerve transfers vs nerve grafting for shoulder reconstruction in supraclavicular brachial plexus injuries N Waughlock, WL Lam, DC Chuang (Sweden)
15:02 OPS 45 / A-0368		Neurogenic thoracic outlet syndrome - surgical experience, indication, surgical experience and results in a series of 59 patients G Weigel, Ch Karner, W Girsch (Austria)
15:10 OPS 46 / A-0432		Less is more; a cadaveric demonstration of the difference in length of ulnar nerve required for contalateral C7 nerve transfers using the prevertebral route as compared to the subcutaneous route M Racy, M Nassimizadeh, A Simpson, J Dabis, A Hunter, V Rajaratnam (UK)
15:18 OPS 47 / A-0436		Surgical restoration of pediatric forearm supination deformity in obstetric brachial plexus palsy O Berköz, T Ozkan, HU Aydin, A Aydin, S Ozkan (Turkey)

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HALL C	SESSION 6: ARTHROPLASTIES 1
14:00-15:30	Chair: M Boeckstyns (Denmark), R Thorkildsen (Norway)
14:00 OPS 48 / A-0032	Surface arthroplasty of proximal interphalangeal joint with avanta prosthesis A Donadelli, E Carita (Italy)
14:08 OPS 49 / A-0096	Revision arthroplasty of the PIP-joint after primary failure of a silicone implant St Schindele, T Keuchel, D Herren (Switzerland)
14:16 OPS 50 / A-0229	A 5-year prospective outcome study of Pi2 pyrocarbon interposition arthroplasty for the treatment of thumb carpometacarpal joint (CMCJ) osteoarthritis L Ardoouin, P Bellemere, F Chaise, E Gaisne, M Genestet, T Loubersac (France)
14:24 OPS 51 / A-0271	Avanta SR-MCP Arthroplasties, a prospective consecutive study for five years A Ibsen-Sorensen (Denmark)
14:32 OPS 52 / A-0272	Avanta SR-PIP Arthroplasty, a prospective study for six years A Ibsen-Sorensen (Denmark)
14:40 OPS 53 / A-0282	The Elektra prosthesis for total replacement of the first CMC-Joint. Prospective study with follow-up of one to six years A Ibsen-Sorensen (Denmark)
14:48 OPS 54 / A-0296	Proximal interphalangeal hemi-joint replacement K Pettersson, C Carlsson, J Niklasson (Sweden)
14:56 OPS 55 / A-0338	High failure rate treating CMC 1 osteoarthritis with PI2® pyrocarbon prosthesis J van Aaken, N Holzer, L Wehrli, F Delaquaize, J Y Beaulieu (Switzerland)
15:04 OPS 56 / A-0400	EBRA - a software tool for early prediction of prosthesis failiure of the carpometacarpal joint of the thumb AA Tandara, LJ Capeller, M Jarczok, P Mayrhofer, B Helbig, M Jung, W Daecke (Germany)
15:12 OPS 57 / A-0429	Short term outcomes of Trapeziectomy versus pyrocarbon interposition implant (PI2) arthroplasty for thumb carpalmetacarpal osteoarthritis- preliminary results M Maru, P Jettoo, M Jones, L Tourret, L Irwin (UK)
15:20 OPS 58 / A-0498	Pyrolytic metacarpophalangeal implants in osteoarthritis JL Roux, G Meyer zu Reckendorf, Y Allieu (France)

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HALL D	SESSION 7: CONGENITAL 2
14:00-15:30	Chair: S Vilkki (Finland), E Eide (Norway)
14:00 OPS 59 / A-0012	Madelung's deformity: Treatment with osteotomy of the radius and insertion of a trapezoidal wedge EJL De Paula, R Mattar Jr, MR Rezende, EN Franca (Brazil)
14:08 OPS 60 / A-0039	The rehabilitation of children's with congenital humeroradial synostosis I Shvedovchenko, A Minkin (Russia)
14:16 OPS 61 / A-0040	The choice of technology of surgical treatment at congenital club hand I Schvedovchenko, A Koltsov, A Minkin (Russia)
14:24 OPS 62 / A-0042	Surgical management of arthrogryposis in the upper extremity O Agronovich, A Baindurashvili, E Petrova, D Buklaev, S Trofimova, E Kochenova (Russia)
14:32 OPS 63 / A-0055	The tunnel carpal syndrome in the children A Leti Acciaro, M Lando, S Sartini, P Ferrari, A Landi (Italy)
14:40 OPS 64 / A-0165	Congenital isolated radial nerve palsy: case series and literature review M Cheema, K Kuti, A Souied, A Jester, R Lester (UK)
14:48 OPS 65 / A-0183	Role of Krukenberg's operation in rising of possibility of self-service at children IV Schvedovchenko, AU Urchenko, AA Koltsov (Russia)
14:56 OPS 66 / A-0211	Distraction osteosynthesis in the pediatric hand surgery: factors affecting osteoreparation V Zavarukhin, A Baindurashvili, S Golyana, A Govorov (Russia)
15:04 OPS 67 / A-0252	Modified reconstruction of radius in type Bayne III radial club hands using microvascular epiphyseal transfer of second metatarsal bone and joint SK Vilkki, P Paavilainen, E Chow, PC Ho (Finland)
15:12 OPS 68 / A-0267	Thrombocytopenia absent radius (TAR) syndrome: clinical features W Hülsemann, R Habenicht, M Mann (Germany)
15:20 OPS 69 / A-0523	A rare congenital disorder: cleft hand, a review of 8 cases A Aydin, SK Yazar, M Ljohiy, CM Erer (Turkey)
15:30-16:00	COFFEE BREAK, EXHIBITIONS AND POSTER VIEWING

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HALL A	SESSION 8: PERIPH NERVES, PLEXUS 2
16:00-18:00	Chair: C Bonnard (Switzerland), S Hovius (Netherlands)
16:00 OPS 70 / A-0027	Reconstruction of long radial nerve defects due to high energy humerus fractures G Yusuf, K Murat, T Tulgar, K Ozaksar, S Sadik Tahir, A Yalcin (Turkey)
16:08 OPS 71 / A-0028	Ulnar nerve injury in crossed pin fixation in pediatric supracondylar fractures of the humerus J Rois, G Culen, A Ergun, P Stergar, A Meznik (Austria)
16:16 OPS 72 / A-0098	Ultrasonic 3D visualisation of ulnar nerve compression at elbow: Plea for focal decompression S Beeharry (France)
16:24 OPS 73 / A-0184	Conservative treatment of cubital tunnel syndrome: Observational retrospective study S De Santis, P Bortot, V Padovan, A Ghezzi, C Novelli, G Pajardi (Italy)
16:32 OPS 74 / A-0214	Ulnar nerve neurotization to biceps motor neurons - a critical evaluation of 19 cases and detailed literature review M Rezende, N Rabelo, E de Paula, R Mattar (Brazil)
16:40 OPS 75 / A-0277	The efficacy of brachial plexus block in diabetic patients: A prospective study SM Isaac, JJ Dias, A Gaur (UK)
16:48 OPS 77 / A-0361	Traumatic axonotmesis condition: A procedure for the best peripheral nerve recovery by the autologous vascularized epineurial transposition A Messina (Italy)
16:56 OPS 78 / A-0366	Double distal median to ulnar neurotisation after high ulnar nerve lesions: a retrospective analysis and comparison with a control group T Giesen, C Hess, I Plock, N Forster, A Schiller, P Giovanoli, M Calcagni (Switzerland)
17:04 OPS 79 / A-0381	Nerve repair by means of tubulization: literature review and personal clinical experience MA Martin-Ferrero, J J Marcos, F Obregon (Spain)
17:12 OPS 80 / A-0383	Neurotization of the posterior interosseous nerve with a branch of the anterior interosseous nerve in radial nerve palsy : Anatomical study and surgical technique Y Vincelet, S Barbary, G Dautel (France)
17:20 OPS 81 / A-0433	Cubital tunnel syndrome- an epidemiological study at a tertiary referral centre M Racy, K Whitcroft, T McBride, A Omar, V Rajaratnam (UK)
17:28 OPS 82 / A-0458	Ultrasonographic identification of peripheral nerves of the hand and forearm IG Dhoulovskaia, AV Scoroglyadov, NA Eskin, DA Magdiev (Russia)
17:36 OPS 83 / A-0500	Thermoregulatory vascular responses are not altered in nerve injury induced cold intolerance in rats LS Duraku, ES Smits, SP Niehof, RW Selles, SEH Hovius, ET Walbeehm (Netherlands)

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HALL C	SESSION 9: ARTHROPLASTIES 2
16:00-18:00	Chair: B Adams (USA), O Reigstad (Norway)
16:00 OPS 85 / A-0037	Total wrist type „Remotion - SBI“ in orthopedic trauma-patients. Implantation via less invasive approach DR Hager, LS Bodell, SM Froschauer, H Schoeffl, O Kwasny (Austria)
16:08 OPS 86 / A-0059	Long-term results (more than 10 years) follow up of total joint arthroplasty in the treatment of thumb carpometacarpal joint osteoarthritis MH Martin-Ferrero, C Vega, J Aurelio Lomo (Spain)
16:16 OPS 87 / A-0072	Results of the total modular wrist prosthesis in revision total wrist arthroplasty: A retrospective study of 18 cases P Bijlsma, LCM Keijser (Netherlands)
16:24 OPS 88 / A-0250	Non-viable proximal pole of the scaphoid: APSI vs isolated scaphoidectomy AG Pereira, M Massada, R Sousa, S Amorim, M Trigueiros, R Lemos, C Silva (Portugal)
16:32 OPS 89 / A-0256	Results of the Universal II Total Wrist Prosthesis in patients with Rheumatoid Arthritis and in patients with Post-Traumatic Arthrosis RAM Blomme ¹ , TM Moojen ² , H Slijper ³ (Netherlands)
16:40 OPS 90 / A-0295	The maestro total wrist implant- a two-year follow-up K Pettersson, C Carlsson, J Niklasson (Sweden)
16:48 OPS 91 / A-0303	Universal 2 prosthetic replacement of the wrist S Pfanner, G Guidi, M Ceruso (Italy)
16:56 OPS 92 / A-0329	The Elektra prosthesis for the CMC joint of the thumb after follow-up of 10 years; 48 cases P-J Regnard (France)
17:04 OPS 93 / A-0416	Total wrist arthroplasty for rheumatoid arthritis. Results of the first 21 patients operated C Silva, M Trigueiros, R Lemos, A Pereira, M Guedes, R Sousa, R Aido (Portugal)
17:12 OPS 94 / A-0450	An online registry for total wrist replacement MEH Boeckstyns, G Herzberg, A Ibsen Sørensen, P Axelsson, PP Borelli (Denmark)
17:20 OPS 95 / A-0459	Novel pyrocarbon interposition arthroplasty for the wrist when radiocarpal and midcarpal joint destruction. Ph Bellemere, Th Loubersac, E Gaisne, M Genestet, A Thebaud, C Maes (France)
17:28 OPS 96 / A-0497	Trapeziectomy and tendon interposition for the osteoarthritis of the trapeziometacarpal joint: Benefits of the anchovy anchor fixation and tendon suspension B Amara, R Matasa (Belgium)
17:36 OPS 97 / A-0503	The distal radius replacement and resurfacing prosthesis for complex intra-articular fractures JL Roux (France)
17:44 OPS 98 / A-0536	Ulnar Head Implant Arthroplasty for Treatment of Arthritis of the DRUJ BD Adams (USA)

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HALL D	SESSION 10: FRACTURES HAND, CARPUS
16:00-18:00	Chair: M Garcia-Elias (Spain), I Neergård Sletten (Norway)
16:00 OPS 99 / A-0013	Complex wrist injuries: fractures of the lunate EJL De Paula, R Mattar Jr, MR Rezende, EN Franca (Brazil)
16:08 OPS 100 / A-0106	Minimally invasive surgical treatment of scaphoid fractures Z Dailiana, L Papatheodorou, S Varitimidis, GA Komnos, A Christou, KN Malizos (Greece)
16:16 OPS 101 / A-0132	Operative treatment of avulsion fracture of flexor digitorum profundus HJ Kang, IH Koh, YJ Kim, JG Lee, YR Choi (South Korea)
16:24 OPS 102 / A-0147	Treatment of metacarpal fractures experience with internal fixation V Melnikov (Russia)
16:32 OPS 103 / A-0152	Double trapezial sign in scaphoid nonunion Y M Lee, S W Song, Y J Suh, J M Park (South Korea)
16:40 OPS 104 / A-0154	A percutaneous transtrapezial approach to scaphoid fractures does not lead to ST degeneration G Geurts, RP van Riet, G Meermans, F Verstreken (Belgium)
16:48 OPS 105 / A-0162	Percutaneous transtrapezial screw fixation of the scaphoid fractures SW Kang, HM Kim, CH Jeong, SU Lee, IJ Park (South Korea)
16:56 OPS 106 / A-0168	Optimal fixation of acute scaphoid fractures - A cadaveric study S Luria, Lenart L, Lenart B, Peleg E, M Kastelec (Israel)
17:04 OPS 107 / A-0179	Functional conservative treatment of proximal phalangeal fractures using the Lucerne Cast (LuCa) - Do we have to immobilize the wrist? T Franz, U von Wartburg, AR Jandali, S Schibli-Beer, M Calcagni, U Hug (Switzerland)
17:12 OPS 108 / A-0223	Clinical and radiological results after operative treatment of mallet fracture L Reissner, A Platz, M Kilgus (Switzerland)
17:20 OPS 109 / A-0247	Validity of clinical scaphoid examinations in wrist injury with normal X-ray. Clinical scaphoid score (CSS) compared with scaphoid pathology confirmed by MRI TH Bergh, T Lindau, LA Soldal, SV Bernardshaw, K Steen, M Behzadi, C Brudvik (Norway)
17:28 OPS 110 / A-0251	Mri findings in adults with acute wrist sprain and negative x-ray TH Bergh, T Lindau, LA Soldal, SV Bernardshaw, M Behzadi, K Steen, C Brudvik (Norway)
17:36 OPS 111 / A-0293	Infection rate of open v closed fixation for metacarpal fractures A Allouni, A Murray, S Majumder, S Southern (UK)
17:44 OPS 112 / A-0332	The long term outcome of scaphoid non-union using Herbert screw and iliac crest graft D Efsthopoulos, P Aretaiou, D Segkos, S Leles, D Tsekis, A Efsthopoulou (Greece)
17:52 OPS 113 / A-0385	Significance of reduction of the humpback deformity in scaphoid reconstruction HC Erne, A Elgammal, B Lukas (Germany)
18:00 OPS 114 / A-0445	Open reduction and pull out fixation of the rotated avulsion fracture by the volar plate in PIP joint SJC Choi, BCK Kwon, YBL Lee (South Korea)
18:08 OPS 115 / A-0488	Unreduced perilunate injuries: Treatment options and mid-term results E Apergis, A Palamidi, E Tsiologiannis, N Koutsoubelis, D Oikonomopoulos, E Karadimas (Greece)

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SPISERIET MØLLER POSTER SESSION 1 FESSH

PPS 1	Flexor Tendon Reconstruction in neglected flexor tendon injuries zone I& II Yahia Zeidan (Saudi Arabia)
PPS 2	Risk factors associated with trigger finger, a retrospective study S Hadidi, J Ajlouni, S Aghabi, B Haddad, R Alhamdan (Jordan)
PPS 3	Palm swelling due to anomalous flexor digitorum superficialis of the brevis type: a review of the phylogeny of this muscle W Bhat, A Akali, S Kay (UK)
PPS 4	Closed extensor indicis proprius tendon rupture presenting mass clinic on dorsal side of the wrist Harun Kütahya, Ali Güleç, M.Ali Acar*, M.Nazım KaralezĐ, Yunus Güzel (Turkey)
PPS 5	Which factors influence the outcome of flexor tendon surgery in zone 2? A retrospective study I Z Rigó, M Røkkum (Norway)
PPS 6	Implant-related tendon complications after volar plating for distal radius fractures T Dönicke R Friedel GO Hofmann (Germany)
PPS 7	Surgical treatment of Mallet finger deformity using de-epidermised skin flaps A Georgescu, I Matei, I Capota, F Ardelean, O.Olaru (Romania)
PPS 8	Closed Traumatic Avulsion of both Flexor Tendons in the third finger Tunç Cevat, ÖĐün Đsmail, Hakkı Korucu, Ali Güleç, Harun Kütahya, Mehmet Ali Acar (Turkey)
PPS 9	Primary repair of Zone 1 Flexor Tendon injuries ASC Bidwai, L Feldberg (UK)
PPS 10	Shirt-button over the nail technique for the treatment of Zone 1 Flexor Tendon injuries ASC Bidwai, L Feldberg (UK)
PPS 11	Foreign Body In The Extensor Tendon Sheath Causing Symptoms That Mimics The De-Quervain 's Tendonitis Azimet Özdemir, Selma Sonmez Ergun, Mehmet Veli Karaaltın, Kemallettin Yıldız, Zahide Eris Eken (Turkey)
PPS 12	Treatment of De Quervain tenosynovitis with a Z-plasty of extensor retinaculum M Rosati, M Lisanti, A Poggetti, L Andreani (Italy)
PPS 13	Fibrolipohamartoma of median nerve. Camitz Procedure Mª D Gimeno García- Andrade, B de Francisco Marugán, J González del Pino, G Gutiérrez-Argumosa (Spain)
PPS 14	Clinical outcomes of carpal tunnel release among patients with hemodialysis-associated carpal tunnel syndrome: case-control study HJ Kang, SB Hahn, YR Choi (South Korea)
PPS 15	Compression of the Ulnar Nerve in Guyon's Canal by an Angioleiomyoma: A Case Report IJ Park, CH Jeong, HM Kim, SU Lee (South Korea)
PPS 16	Endoscopic exploration and repair of Brachial Plexus with Tele-Robotic manipulation: A cadaver trial G Mantovani, P Liverneaux, S Berner, M Bednard, C Mohr, JC Garcia Jr. (Brazil)

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PPS 17	Comparison of the compression regions detected by electrodiagnostic tests and surgical examination in patients who have ulnar neuropathy at the elbow Selcuk Yalcinkaya, Levent Kucuk, Funda Atamaz, Calis Arzu, On Oguz Ozdemir, Erhan Coskunol (Turkey)
PPS 18	Guyon's canal syndrome by ganglion with Cubital tunnel syndrome by epitrochleo-anconeus muscle(double-crush syndrome) : A Case Report SU Lee, IJ Park (South Korea)
PPS 19	Quick onset long acting brachial plexus blocks in hand surgery A El Gawad, M Saleh, A Logan, F Fahmy (UK)
PPS 20	Endoscopic treatment of the "difficult" cubital tunnel syndrome with osteoarthritis and valgus deformity R Hoffmann (Germany)
PPS 21	Ulnar Neuropathy in the elbow Epicondylectomy – Epineurotomy our experience on 140 Cases D Efstathopoylos, Ath Topkas, G Zoumpoulis D Tsekis, Sot Leles, Aik Efstathopoulou (Greece)
PPS 22	Axonammonosis of the posterior interosseous nerve: Reports of 5 cases Y Tsuda, H Arino, M Amako, K Yamamoto, K Nemoto (Japan)
PPS 23	Functional outcomes of digital nerve injuries G Humm, M Racy, V Rajaratnam (UK)
PPS 24	Evaluation of the sonographic morphology of the median nerve in the carpal tunnel before and after open carpal tunnel release E Calif A Dirawi J Hakim (Israel)
PPS 25	Long-term Change of Clinical and Nerve Electrophysiological Findings after Endoscopic Carpal Tunnel Release SJ Cheon, KP Moon, JM Lim (South Korea)
PPS 26	Agents promoting Peripheral-Nerve Repair: Current concepts with regard to their use in the clinical and experimental setting E Ntouvali, Z Dailiana (Greece)
PPS 27	Incidence of physician-diagnosed carpal tunnel syndrome in the general population I Atroshi, M Englund, A Turkiewicz, M Tägil, I F Petersson (Sweden)
PPS 28	Intraneural Hamangioma of the Median Nerve C Mills, P Hughes, R Morris (UK)
PPS 29	Autogenous Agumentation of the first web space Atrophy in ulnar nerve Palsy S Tuncer, T Ozkan (Turkey)
PPS 30	Outpatient surgery for carpal tunnel syndrome: Patient rating of staff-patient interaction and quality of information given by the surgeon on the day of surgery E Ahlgren, I Atroshi (Sweden)
PPS 31	Bilateral congenital muscular hyperplasia of the upper extremity - a case report S Kluge, DM Weber, D Herren (Switzerland)
PPS 32	Surgical treatment of children with ulnar hemimelia with congenital flexion of the elbow joint IV Schvedovchenko, AA Koltsov, EZ Schaidayev (Russia)

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PPS 33	Neonatal compartment syndrome of the forearm: case series and literature review K Kutı, A Souied, M Cheema, A Jester, R Lester (UK)
PPS 34	Long-term results of surgical treatment of congenital hand malformations Renner A, T Kassai, A Szentirmai (Hungary)
PPS 35	Guided Growth in the Hand & Wrist - Harnessing Nature A Murray, KK Stohr, T Bidwell (New Zealand)
PPS 36	Resolution of the Pseudo-Syndactyly and hand "bag" in patients with Epidermolysis Bullosa (EB) F Lembo, D Parisi, A Portincasa (Italy)
PPS 37	Isolated congenital absence of thenar muscles with carpal tunnel syndrome Jin-Rok Oh, Chang-Ho Yi (South Korea)
PPS 38	Aberrant muscle syndrome: an uncommon disorder of the hand Sevgi Kurt Yazar, Atakan Aydın, Çiğdem Derya Serin, Celal Metin Erer (Turkey)
PPS 39	Orthotopic Transfer of Prefabricated Bone Flaps in a Rabbit Model A Kämpfen, RD Largo, S Güven, A Scherberich, I Martin, DJ Schaefer (Switzerland)
PPS 40	Result of Callus Distraction Lengthening by Ilizarow Technique in Phalanx and Metacarp A Dianat, K Dianat (Iran)
PPS 41	The Treatment for Kienbock's Disease using the 4th Extensor Compartmental Park, Il-Jung (South Korea)
PPS 42	Clinical application of rapid prototyping in finger reconstruction after traumatic bone loss M Haefeli, R Schumacher, A Frank, P Honigmann, U Genewein, DJ Schaefer, DF Kalbermatten (Switzerland)
PPS 43	Vascularized bone grafts in Carpal Pathology A Pagnotta, E Taglieri, S Faraglia, J Molayem, E Zanzotto, R Sadun (Italy)
PPS 44	Bone defects following enchondroma of the hand. Literature review and treatment recommendations K Da Fonseca (Germany)
PPS 45	Articular fracture of the distal radius treated by Locking plate with arthroscopic assistance: About 26 cases with 18 months follow up S Barbary, M Pozzetto, N Gibert, A Dederichs, T Jager, F Dap, G Dautel (France)
PPS 46	Distal radioulnar joint injuries predictor of late instability of the fractures of distal radius N Myderrizi (Albania)
PPS 47	Comparison with Double and Single-tiered Subchondral Support fixed with Volar Locking Plate for the Treatments of AO Type C3 Distal Radius Fractures Hideki Ishii, Kenji Tsunoda, Masamori Shigematsu, Hirofumi Tanaka, Tomohito Yoshihara, Akihiko Asami (Japan)
PPS 48	Differential Indication for therapy of the Distal Radius Fracture K Moussa (Germany)
PPS 49	Is there a need for C-arm CT imaging in volar plate osteosynthesis of distal radius fractures? I Mehling, P Rittstieg, LP Mueller, PM Rommens (Germany)

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SPISERIET MØLLER POSTERS FESSH

PPS 50	Advantages of a distal radio-ulnar pin in percutaneous pin fixation for treatment of distal radius fractures JY Kim (South Korea)
PPS 51	Unstable distal radius fractures treated with external fixation and adjuvant pins or a volar locking plate . A randomized study. (1 year results) JH Williksen, F Frihagen, JC Hellund, IT Hauksson, HD Kvernmo, T Husby (Norway)
PPS 52	Percutaneous Herbert screw fixation for the treatment of the distal radial fracture I Naumov, L Várhidy, N Wiegand, T Máthé, T Bukovecz (Hungary)
PPS 53	Arthroscopic Osteosynthesis in Scaphoid Nonunion Jui-Tien Shih (Taiwan)
PPS 54	The bilboquet osteosynthesis technique. Results from a retrospective study of 72 adult cases treated for hand metacarpal and phalanx extraarticular fractures D Guinard MD, A Gay MD, JF Chabas MD, R Legré MD (France)
PPS 55	Long-Term Results of Scaphoid Non-Union Surgery: 50 Patients Reviewed After 8-18 Years O Reigstad, C Grimsgaard, R Thorkildsen, A Reigstad and M Røkkum (Norway)
PPS 56	The Epidemiology of Hand Fractures E Laugharne, D Bhavsar, V Rajaratnam (UK)
PPS 57	Post-traumatic Metacarpal Synostosis. Case report L Heras-Garcia O Mares (United Arab Emirates)
PPS 58	Disorganized open carpal injury attendance: case report Zs Gergely, J Kovács, G Kertész (Hungary)
PPS 59	1, 2 intercompartmental supratretinacular artery pedicled vascularized bone grafting and mini-acutrak screw fixation of scaphoid nonunions with avascular proximal poles C Lamas (Spain)
PPS 60	A complete dislocation of the thumb metacarpal with extreme displacement - an unusual case YJ Sur, SW Song, YM Lee (South Korea)
PPS 61	Treatment of intra-articular fractures of the first metacarpal base with hybrid external device S Bely, A Loskutov, V Tovstograi, R Daragan (Ukraine)
PPS 62	Reconstruction of proximal interphalangeal joint fracture-dislocations with a hamate autograft L Aguilera A Fuentes (Spain)
PPS 63	Persistent ulnar-sided pain after treatment of triquetral dorsal chip fracture: 6 cases relatet to TFCC Seoung Joon, Lee (South Korea)
PPS 64	Type III Middle Phalangeal Neck Fractures Treatment through a Palmar Approach A Nistor, C Fusetti, S Lucchina (Switzerland)
PPS 65	Complex and unstable hand fractures - results after operative repair and fixation with angular stability plates S Angelov , D Aleksandrov , J Andonov , B Valentinov (Bulgaria)

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PPS 66	Lesions of the proximal Interphalangeal joint of hand J Canosa, MD, C López, MD, JJ Morales MD, JM Illobre MD, O Salgado MD, M De La Torre MD, CH Gordo MD (Spain)
PPS 67	Osteosynthesis of metacarpal fractures with 2.0 LCP plate and functionally postoperative treatment B Oberreiter, M Kilgus, A Platz (Switzerland)
PPS 68	Finite element analysis study of distraction force in a modified Suzuki frame: "The Grasshopper" M Cheema, K Kutti, N Nazar, V Rajaratnam (UK)
PPS 69	The epidemiology and initial presentation of 270 scaphoid non-unions Ole Reigstad, Christian Grimsgaard, Rasmus Thorkildsen, Astor Reigstad, Magne Røkkum (Norway)
PPS 70	Metacarpal fractures: surgical treatment S Odella, V Bruno, R Sartore, R Torretta (Italy)
PPS 71	Expanded applications of Ishiguro technique for surgical treatment of various avulsion fractures in finger and toe : Percutaneous buttress pinning technique JW Kang, WJ Jeon, JI Lee, SH Lee, JW Park (South Korea)
PPS 72	Traumatic dislocation of the trapeziometacarpal joint JCR Castellanos, Juan OIC Izquierdo, Oscar EDF, Domínguez, Enric (Spain)
PPS 73	Impingement syndrome of the Pisiform after Proximal Row Carpectomy S Kluge, MD St Schindele, MD D Herren, MD (Switzerland)
PPS 74	Viegas dorsal capsulodesis for chronic scapholunate dissociation before osteoarthritis M Genestst, P Bellemere, JP Friol, A Thebaud, F Chaise, E Gaisne, Y Kerjean, T Loubersac, P Poirier (France)
PPS 75	Conservatively treated fracture of hamate Bülent Tanrıverdi, Cemal Kural, Mustafa Gökhan, Bilgili Erdem Edipoğlu (Turkey)
PPS 76	Free microvascular osteo-chondral Femur transfer for reconstruction of the scaphoid and lunate H Bürger, A Gstrein, W Kukutschki, A Gaggl, E Müller (Austria)
PPS 77	Our experience in treatment of dislocations and fracture-dislocations of metacarpals base of the hand Magdiev DA, Egiazaryan KA (Russia)
PPS 78	A Comparative Study of Three Different Bone Grafting Methods for Treatment of Scaphoid Nonunion SJ Cheon, SH Cha, HT Kim (South Korea)
PPS 79	Rigid double hook microplate for intra-articular avulsion fracture of the base of middle phalanx P Surdziel, L Romanowski (Poland)
PPS 80	Vascularized os pisiform in the treatment of Kienbock's disease stage II and IIIa and scaphoid bone pseudoarthrosis VD Bascarevic, PR Nedeljkovic, ZLj Bascarevic (Serbia)
PPS 81	Locking of the metacarpophalangeal joint of the thumb caused by entrapment of the radial sesamoid bone: Report of three cases S Lee, SH Jeon, J-Y Kim (South Korea)

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PPS 82	Treatment with locking plate fixation of displaced midshaft wedge or comminuted segmental clavicular fractures C Lamas, M Almenara, I Proubasta, L Natera, M Gomez, R Moldovan (Spain)
PPS 83	Intraneural Ganglion of the Ulna Nerve: A Case Report Jui-Tien Shih (Taiwan)
PPS 84	Reconstruction of the distal radio-ulnar joint with a prosthesis of the distal ulna in the treatment of a recurrent giant cell tumour I Walaszek, A Zyluk (Poland)
PPS 85	Treatment of benign bone tumours of the hand using osteoscopy C Taleb, S Facca, S Gouzou, G Mantovani, P Liverneaux (France)
PPS 86	Treatment of Hand Enchondromas A Loskutov, S Bely, I Aleshchenko, R Daragan, V Tovstograi (Ukraine)
PPS 87	Giant cell tumor of the trapezoid: a case report R Sartore, P Del Bo', S Odella, W Albisetti, F Torretta (Italy)
PPS 88	Giant tumours of the hand. Bening or malign? That's the question. Three cases and review of the litterature D Escobar Anton, F Corella Montoya, M. Ocampos Harnandez, M Del Cerro, E Bartolome del Valle (Spain)
PPS 89	Osteoid of the Wrist. Report of 13 cases A. Lluch, A. Ferreres (Spain)
PPS 90	Nail unit reconstruction with "integra" after wide local excision of a subungueal melanocytic lesion. Could it be an option to avoid treatments with increased morbidity? F Corella, M Martin Diaz, E Balbin, M Ocampos, D Escobar (Spain)
PPS 91	Osteoblastoma as unusual case of wrist pane Garcia Olea A, Ortega Briones A, Emilov K (Spain)
PPS 92	A rare case of pyogenic flexor tenosynovitis caused by haemophilus parainfluenzae E Papadogeorgou, R Dimitriou, S Tsimplakou, K Nikolopoulos (Greece)
PPS 93	Phlegmonous infection of a hand after interdigital piercing D Hager R Schnelzer H Schoffl GM Huemer (Austria)
PPS 94	Giant Histiocytifibroma of the Hand: Case Report Y Izem, C Guardia, G Herzberg (France)
PPS 95	Hand hemangioma with ulnar artery aneurysm - case presentation M Mastacaneanu, Z Crainiceanu, P Taskov, M Iacob, A Dema, T Bratu (Romania)
PPS 96	Bilob flap: a simple and effective solution for one stage reconstruction of skin defects resulting from tumors excision Vassiliki Tsiampa, I Ignatiadis, L.Roumeliotis, S.Lallos, S.Tsivgoulis, E.Brillakis, N Eustathopoulos (Greece)

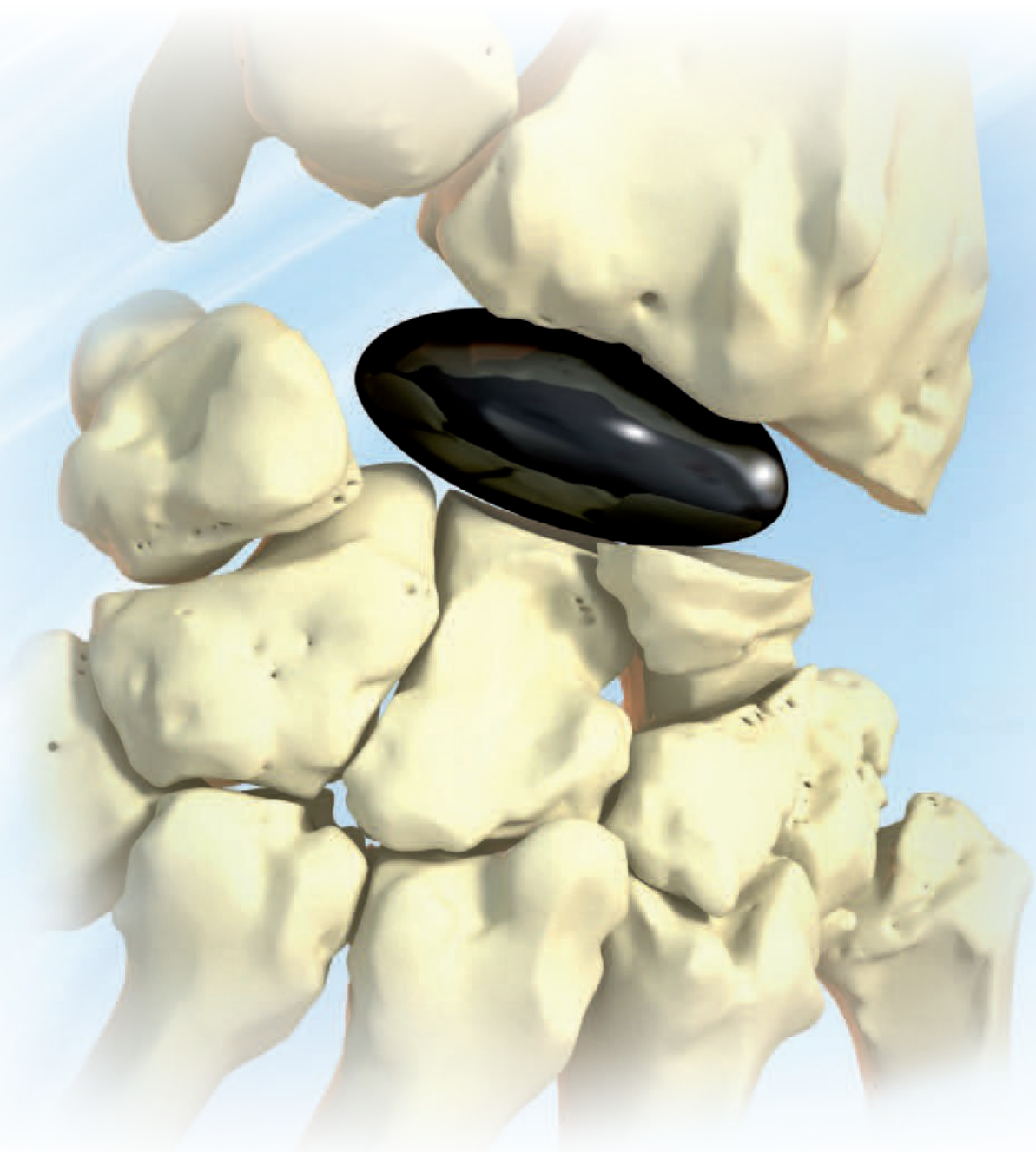
END THURSDAY



AMANDYS

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Free wrist Interposition



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FRIDAY 27 MAY 2011

AUDITORIUM		FESSH DELEGATES MEETING	
07:30-09:30		FESSH Delegates Meeting	
HALL A		DISTAL RADIUS FRACTURES	
		Joint session FESSH/EFSSH	
08:00-10:00		Chair: H Kvernmo, T Åsheim (Norway)	
See page 95 for the corresponding abstracts			
08:00	Epidemiology of distal radius fractures L Hove (Norway)		
08:10	Evolution and anatomy of the wrist M Tamai (Japan)		
08:25	Unstable distal radius fractures Y Krukhaug (Norway)		
08:35	Current state of management of distal radius fractures K Prommersberger (Germany)		
09:05	Outcome measurements J MacDermid (Canada)		
09:20	Complications after operative treatment of distal radius fractures J Williksen (Norway)		
09:35	Rehabilitation after distal radius fractures J MacDermid (Canada)		
10:00-10:30		COFFEE BREAK, EXHIBITIONS AND POSTER VIEWING	

FRIDAY 27 MAY 2011

FORUM	INSTRUCTIONAL COURSE PART 3: THE WRIST JOINT
08:00-10:00	Chair: A Ibsen (Denmark), M Røkkum (Norway)
08:00	Indications for arthroplasty. Early designs A Watts (UK)
08:20	The Universal prosthesis BD Adams (USA)
08:30	The Re-Motion prosthesis M Boeckstyns (Denmark)
08:40	The Maestro prosthesis G Packer (UK)
08:50	The Total Modular prosthesis PCG Hubach (Netherlands)
09:00	The Motec prosthesis O Reigstad (Norway)
09:10	Report from The Norwegian Arthroplasty Register Y Krukhaug (Norway)
09:20	Complications of wrist arthroplasty BD Adams (USA)
09:40	Discussion

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HALL D	SESSION 11: ARTHROSCOPY
08:00- 09:30	Chair: G Herzberg (France), I Rigo (Norway)
08:00 INV 5	Reconstructive Arthroscopic Surgery of the Wrist- How Far We Can Reach? PC Ho (Hong Kong, PRC)
08:25 OPS 116 / A-0003	Half-year outcomes of wrist arthroscopy with intra-articular hyaluronic acid treatment A Schuetz, S Stangl, B Yurteri, P Dobner, M Nerlich (Germany)
08:33 OPS 117 / A-0021	Arthroscopic osteoid osteoma ablation, Is it necessary to arthrolysis? RS Kamrani, L Farhadi (Iran)
08:41 OPS 118 / A-0026	The value of wrist arthroscopy in Kienböck's disease T Pillukat, KH Kalb, J van Schoonhoven, K -J Prommersberger (Germany)
08:49 OPS 119 / A-0076	Value and reliability of videodocumentation compared to fotodocumentation in wrist-arthroscopies S Loew, K J Prommersberger, T Pillukat, J van Schoonhoven (Germany)
08:57 OPS 120 / A-0191	Treatment of combined scaphoid fracture and scapholunate ligament lesion JC Messina, R Luchetti (Italy)
09:05 OPS 121 / A-0213	Arthroscopic assessment of the wrist in the Kienböck's disease M Rezende, E de Paula, R Mattar, E Franca (Brazil)
09:13 OPS 122 / A-0300	Arthroscopic resection arthroplasty for treatment of combined CMC and STT (Pantrapezial) arthrosis T Cobb (USA)
09:21 OPS 123 / A-0354	Arthroscopic reconstruction of the S-L ligament in the III-IV lesions of Gessler classification: a new technical possibility? N Della Rosa, M Abate, A Russomando, A Landi (Italy)
09:29 OPS 124 / A-0397	Arthroscopic excision of dorsal wrist ganglion: Factors related to recurrence and residual pain JP Kim, YH Park (South Korea)
09:37 OPS 125 / A-0414	Arthroscopic treatment of chronic metacarpophalangeal joint pain of the thumb - anatomical basis and results AKY Choi, YY Chow (Hong Kong)
09:45 OPS 126 / A-0495	Arthroscopic reconstruction of proximal lesions of the TFCC in acute and chronic lesions EM Baur, S Smieja (Georgia)
09:53 OPS 127 / A-0496	Occult scapholunate instability in adolescens. Treatment options P Surdziel, L Romanowski (Poland)
10:00-10:30	COFFEE BREAK, EXHIBITIONS AND POSTER VIEWING

FRIDAY 27 MAY 2011

HALL A	DISTAL RADIUS FRACTURES AND ASSOCIATED INJURIES
10:30-12:00	Chair: J Williksen (Norway) F del Piñal (Spain)
See page 95 for the corresponding abstracts	
10:30	Arthroscopy as a tool in the treatment of intraarticular distal radius fractures - what to achieve? F dePinal (Spain)
10:45	How to evaluate and treat concomitant carpal injuries with distal radius fractures T Lindau (UK)
10:55	How to deal with concomitant ulnar sided wrist injuries J-R Haugstvedt (Norway)
11:10	Repair of TFCC injuries with distal radius fractures T Nakamura (Japan)
11:20	New classification of distal radius fractures necessary M Tamai (Japan)
11:30	Panel: Distal radius fractures - which questions remain to be answered?

FORUM	INSTRUCTIONAL COURSE PART 4: THE INTERCARPAL JOINTS and 5: THE RADIOULNAR JOINTS
10:30 –10:55	Chair: BD Adams (USA), M Røkkum (Norway)
Part 4: The Intercarpal Joints	
10:30	Carpal implants. Pyrocarbon scaphotrapezial arthroplasty L Pegoli (Italy)
10:45	Discussion
Part 5: The Radioulnar Joints	
10:55	Indications for arthroplasty. SBI Ulnar Head Implant G Herzberg (France)
11:10	Partial ulnar head implants. How to respect stability in DRUJ P Kopylov (Sweden)
11:25	The Scheker prosthesis J Ganser (Switzerland)
11:40	Discussion

FRIDAY 27 MAY 2011

HALL D	SESSION 12: NEUROORTHOPEDICS, TENDON TRANSFER
10:30-12:00	Chair: J Fridén (Sweden), F Moutet (France)
10:30 INV 6	Challenging the dogmas in tendon transfer procedures J Fridén (Sweden)
10:55 OPS 128 / A-0220	Thumb deformity in spatic hand L Fialova (Czech Republic)
11:03 OPS 129 / A-0232	Effects of scar tissue on mechanical characteristics of transferred flexor carpi ulnaris muscle in the rat H Maas, MJ Ritt, PA Huijing (Netherlands)
11:11 OPS 130 / A-0327	Biomechanic and kinematic arguments for glenohumeral dysplasia in obstetric brachia plexus palsy J Bahm, C Disselhorst-Klug (Germany)
11:19 OPS 131 / A-0377	Quality of life with tetraplegia after reconstructive hand surgery A Choulman, A Niedeggen, S Unger, R Boettcher (Germany)
11:27 OPS 132 / A-0455	ECU tenodesis to improve grip strength and prevent shoulder pain in patients with tetraplegia C Reinholdt, J Fridén (Sweden)
11:35 OPS 133 / A-0456	Outcomes of the alphabet-procedure for reconstruction of the grip in tetraplegia C Reinholdt J Fridén (Sweden)
11:43 OPS 134 / A-0538	Half FPL'Lasso' to A1 pulley for dynamic metacarpophalangeal joint stabilization for 'Z' deformity of thumb & froment's sign correction in irreversible Ulnar / Median-Ulnar nerve paralysis S Rath (India)
11:51 OPS 135 / A-0539	A randomized clinical trial comparing immediate active motion with immobilization after tendon transfer for claw deformity S Rath (India)
12:00 – 14:00	LUNCH IN THE EXHIBITION AREA, POSTER VIEWING

FRIDAY 27 MAY 2011

FORUM	SATELLITE SYMPOSIUM (Lunch box available)
12:15 – 13:45	Synthes Update in Hand & Wrist KJ Prommersberger (Germany), A Schierz (Switzerland) Hospital Zollikerberg Zurich (Switzerland)
HALL D	EWAS GENERAL ASSEMBLY
12:15 – 13:45	EWAS General Assembly
AUDITORIUM	PFIZER TRAINING WORKSHOP (Lunch box available)
12:15 – 13:45	D Warwick C Bainbridge L Hurst
ROOM 1	MOTION WORKING GROUP
12:15 – 13:45	G. Herzberg

FRIDAY 27 MAY 2011

HALL A	SESSION 13: DUPUYTRENS
14:00- 15:30	Chair: C Leclercq (France), JJ Dias (UK)
14:00 OPS 136 / A-0002	Genome-wide association study finds 9 susceptibility Loci for Dupuytren's disease and suggests a major role for WNT-signaling GHCG Dolmans, PMN Werker, HC Hennies, D Furniss, EA Festen, L Franke, K Becker, P van der Vlies, BHR Wolffenbuttel, S Tinschert, MR Toliat, M Nothnagel, A Franke, N Klopp, H-E Wichmann, P Nürnberg, H Giele, RA Ophoff, C Wijmenga (Netherlands)
14:08 OPS 138 / A-0276	Ultrastructural study of radial Dupuytren's disease E MacKenney, D Perea, P Hernandez Ros (Spain)
14:16 OPS 139 / A-0286	Change in range of motion and degree of contracture after treatment with collagenase clostridium histolyticum for Dupuytren's contracture: Pooled analyses from 2 multinational double-blind trials J Witthaut, S Wilbrand, H Kushner, P Szczypa, RA Gerber (Sweden)
14:24 OPS 140 / A-0287	Efficacy and tolerability of collagenase clostridium histolyticum in European patients with Dupuytren's contracture: Results from a multicenter, open-label study J Witthaut, S Wilbrand, R Milner, C Bainbridge, DE Boyce, H Kushner, RA Gerber, P Szczypa (Sweden)
14:32 OPS 141 / A-0292	Collagenase clostridium histolyticum for the treatment of Dupuytren's contracture: Mechanism of action and tissue effects P Szczypa, R Gerber, FTD Kaplan, A Cole, SGE Hart (UK)
14:40 OPS 142 / A-0299	Efficacy and safety of collagenase clostridium histolyticum (CCH) in patients who had previous hand surgery C Bainbridge, RA Gerber, P Szczypa, B Cohen, M-P Hellio Le Graverand (UK)
14:48 OPS 143 / A-0316	The Southampton Dupuytren's scoring scheme A Mohan, J Vagher, H Ismail, D Warwick (UK)
14:56 OPS 144 / A-0410	5-year results of randomized clinical trial on treatment in Dupuytren's disease: percutaneous needle fasciotomy versus limited fasciectomy AL van Rijssen, H ter Linden, PMN Werker (Netherlands)
15:04 OPS 145 / A-0418	Treatment of severe Dupuytren's contracture by homo- or heterodigital flaps B Lukas, M Lukas (Germany)
15:12 OPS 146 / A-0516	Surgical management of Dupuytren's disease across 12 European countries: an analysis of patient charts J Dias, C Leclercq, LB Dahlin, C Bainbridge, PP Szczypa, JC Cappelleri, Y Kyriazis, RA Gerber (UK)

FRIDAY 27 MAY 2011

FORUM	SESSION 14: MICROSURGERY-REPLANTATION 1
14:00- 15:30	Chair: P Liverneaux (France), A Reigstad (Norway)
14:00 INV 7	Vascularized bone grafting for scaphoid nonunion: clinical and experimental studies A Bishop (USA)
14:25 OPS 147 / A-0127	Formative hand surgery by combined use of hand and microsurgical techniques and an external fixator H Gotani, Y Yamano (Japan)
14:33 OPS 148 / A-0196	Composite free venous flaps in the reconstruction of composite digital defects: A clinical experience in 31 patients M Karaaltın, A Özdemir, A Erdem, K Yıldız, AM Akkus, FN Yogun, AC Akpınar, SS Ergün, E Guneren (Turkey)
14:41 OPS 149 / A-0216	Direct and reverse metacarpal flaps: A review of 32 cases P Tos, R Adani, A Vigasio, B Battiston (Italy)
14:49 OPS 150 / A-0263	Severe upper limb injuries with or without neurovascular compromise in children and adolescents. Analysis of 31 cases I Ignatiadis, D Arapoglou, V Tsiampa, E Drampalos, V Papakonstantinou, T Karinos, G Konstantopoulos, N Gerostathopoulos (Greece)
14:57 OPS 151 / A-0356	Microvascular monitoring with a novel laser doppler imaging system W Raffoul, P Erba, M Fridrich (Switzerland)
15:05 OPS 152 / A-0398	The use of venous flaps in reconstruction of digital defects: Experience with the shunt-restricted technique for improved survival and reliability N Waughlock, WL Lam, Lin YT (Sweden)
15:13 OPS 153 / A-0434	Analysis of consistency of the perforated radial forearm flap M Nassimizadeh, M Racey, A Simpson, J Dabis, A Hunter, R Vaikunthan (UK)
15:21 OPS 154 / A-0479	Vascularized second toe joint transfer for finger PIP reconstruction : 34 cases with 4,6 years follow-up M Pozzetto, S Barbary, N Gibert, T Jager, A Dederichs, F Dap, G Dautel (France)

FRIDAY 27 MAY 2011

HALL D		SESSION 15: FRACTURES
14:00- 15:30		Chair: J Messina (Italy), T Husby (Norway)
14:00 INV 8		Treatment of forearm malunions with pro-supination limitations F Stockman (Belgium)
14:30 OPS 155 / A-0056		Corrective osteotomy for malunited fractures of the distal radius OM Semnkin, Sergey N Izmalkov, Denis V Kulikov (Russia)
14:38 OPS 156 / A-0297		12-month follow-up of 230 intraarticular (AO-C fractures) distal radius fractures operated with a dorsal pi-plate and a volar T-plate K Pettersson, D Reiser, Ö Wallgren (Sweden)
14:46 OPS 157 / A-0330		Distal radius malunion - two bone osteotomy and factors affecting decision making R Kebrle, Z Vodicka (Czech Republic)
14:54 OPS 158 / A-0393		Management of distal metaphyseal and diaphyseal radius/ulna fractures in Children: A retrospective analysis R Khokhar, J McMaster (UK)
15:02 OPS 9 / A-0435		Analysis of effects of combinations of pulley resections in flexor tendon bowstringing of digits M Nassimizadeh, A Simpson, M Racey, J Dabis, A Hunter, R Vaikunthan (UK)
15:30 – 16:00		COFFEE BREAK, EXHIBITIONS AND POSTER VIEWING
HALL A		SESSION 16: IS THERE A PLACE FOR ROBOTS IN HAND SURGERY?
16:00- 17:00		Chair: PA Liverneux (France)
16:00		Introduction by moderator
16:05		Replantation in a pig with 2 robots PA Liverneux (France)
16:15		Robotic microsurgical anastomosis of vessels R van der Hulst (Netherlands)
16:25		Tendon transfert with Da Vinci robot M Bednar (USA)
16:35		Robotic surgery in brachial plexus injuries JC Garcia (Brazil)
16:45		Discussion
HALL A		FESSH GENERAL ASSEMBLY
17:00- 18:00		FESSH General Annemby

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FORUM	SESSION 17: MICROSURGERY-REPLANTATION 2
16:00- 17:00	Chair: G Dautel (France), M Røkkum (Norway)
16:00 OPS 159 / A-0007	Thumb reconstruction by partial great toe transfer with short pedicle procedure S Barbary, M Pozzetto, N Gibert, A Dederichs, T Jager, F Dap, G Dautel (France)
16:08 OPS 160 / A-0044	Posterior interosseous artery island flap - Clinical results with special focus on donor site morbidity M Wiedner, M Neuwirth, M Hubmer, H Koch (Austria)
16:16 OPS 161 / A-0045	Thumb reconstruction by grafting skeletonized amputated phalanges & soft tissue cover M Murshid, K Naser Khalid (Qatar)
16:24 OPS 162 / A-0173	The posterior interosseous flap - our experience of 28 clinical cases GM Verega, A Midoni (Moldova)
16:32 OPS 163 / A-0254	Does posttraumatic thumb reconstruction effectively improve hand function? D Parvizi, S Spendel, H Koch (Austria)
16:40 OPS 164 / A-0485	To tunnelise or not the pedicle of a flap? B Bajdik, B Lenkei, Z Czinke, Zs Szabo (Hungary)
HALL D	SESSION 18: DRUJ
16:00-17:00	Chair: R Luchetti (Italy), L Adolfsson (Sweden)
16:00 OPS 165 / A-0217	Selected soft tissue repair of the TFCC to restore stability of the DRUJ STP Kouwenhoven, AR Koch, T de Jong (Netherlands)
16:08 OPS 166 / A-0234	Spontaneous reduction of DRUJ after ulnar shortening in ulnar impaction syndrome Y M Lee, S W Song, Y J Sur (South Korea)
16:16 OPS 167 / A-0280	Early results of a prospective case series with the APTIS total DRUJ implant P Axelsson (Sweden)
16:24 OPS 168 / A-0407	Retinaculum sling with capsule plication for reducible DRUJ instability - technique and results A Filius, EH Coret, HP Slijper, JB Jaquet, JH Coert (Netherlands)
16:32 OPS 169 / A-0447	Modified Sauve-Kapandji procedure for DRUJ derangement SW Song, YM Lee, YJ Suh, SK Rhee (South Korea)
16:40 OPS 170 / A-0463	Comparison between open and arthroscopic TFCC bony repair for post-traumatic DRUJ instability R Luchetti, A Atzei, R Cozzolino (Italy)
16:48 OPS 171 / A-0521	New MR image for the diagnosis of peripheral TFCC injury E Correa Vazquez, S Martinez Martos, J Font Segura, X Mir Buno (Spain)
16:54 OPS 84 / A-0017	Outcomes of distal radioulnar joint arthroplasty S Kakar, P Swann, K Perry, AY Shin, SL Moran (USA)
19:30	CONGRESS DINNER AT THE OSLO OPERA HOUSE

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SPISERIET MØLLER POSTER SESSION 2 FESSH

PPS 97	Dupuytren's contracture: a retrospective database analysis to assess clinical management and costs in England C Bainbridge, R Perry, R Thompson, RA Gerber (UK)
PPS 98	Histologically confirmed heterotopic ossification of Dupuytren's disease: Case Report Athanasou N, McNab I (UK)
PPS 99	The dorsal lateral transposition flap for advanced stages of Dupuytren's disease L Walle, KJ Prommersberger, J van Schoonhoven (Germany)
PPS 100	Angular correction in Dupuytren's fasciectomy with excision of retrovascular cords R Savage J H M Brown A Yewlett (UK)
PPS 101	The Southampton Dupuytren's Scoring Schemes DJ Warwick A Mohan J Vadher H Ismail (UK)
PPS 102	Compressive neuropathies in malunited fractures of distal radius C Vuckovic, D Polojac, D Raspopovic, A Todorovic, S Andjelkovic, M Pavicevic (Serbia)
PPS 103	Triceps tendon reconstruction of the annular ligament with or without ulnar osteotomy for old dislocations of the radial head T Husby, O Wiig (Norway)
PPS 104	The extensor tendon ruptures after volar fixed-angle plate fixation for unstable distal radius fractures SW Kang, YG Chung, IJ Park, JY Lee, SW Song (South Korea)
PPS 105	Posterior elbow dislocation associated with ipsilateral shaft fracture radio. Case report and review of the literature OIC Izquierdo Corres, Oscar EDF Domínguez Font, Enric JCR, Castellanos Robles Juan (Spain)
PPS 106	Bone bridge resection to correct distal radius deformities following a physal growth arrest PYB PY Barthel, PJ P Journeau, GL G Lonjon, BI B. Ilharreborde, PL P. Lascombes, FF F Fitoussi, GD G Dautel (France)
PPS 107	Vascularized epiphysis and joint transposition in pediatric mutilated hand: two cases report JuiTien Shih (Taiwan)
PPS 108	Reverse radial osteocutaneous flap in reconstruction of thumb (Case report-long term result) G Kertész, J Kovács, M Macsári, Z Zakupszky, T Bányai (Hungary)
PPS 109	Side swipe injury as a difficult, complex operative and salvaging microsurgical treatment A Stritar, M Šolinc (Slovenia)
PPS 110	Upper limb salvage following near skeletalisation - a case report and a review of the literature Bhat W, Nikkhah D, Williams AM, Bourke G (UK)
PPS 111	Is adipofascial flap the trick to prevent adhesions after plating of the proximal phalanx? A case report A Nistor, C Fusetti, M Ionac, S Lucchina (Switzerland)
PPS 112	A New Fixation Method Used In Digital Replantation And Toe-To-Finger Transfer Mehmet Veli Karaaltın, Adnan Erdem, Azimet Özdemir, Kemallettin Yıldız, Selma Sönmez Ergün, Ethem Guneren (Turkey)

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SPISERIET MØLLER POSTERS FESSH

PPS 114	Emergency all-in-one reconstruction in complex injuries of the upper limb A Georgescu, I Matei, I Capota, F Ardelean, O Olaru (Romania)
PPS 115	Heterodigital adipofascial flap; A new method for finger skin cover P Paavilainen S Vilkki (Finland)
PPS 116	Coverage by the emergency free flap in severely traumatized extremities with joint exposure CSJ, Choi KBC, Kwon LYB, Lee (South Korea)
PPS 117	Long-term subjective and functional evaluation after thumb replantation with special attention to the Quick DASH questionnaire and a specially designed trauma score called modified Mayo score D Parvizi, H Koch, FM Haas, S Spindel (Austria)
PPS 118	The Reconstructive Modalities In Multi-level Upper extremity and Hand Injuries: A Clinical Experience With 43 Patients Mehmet Veli Karaaltin, Adnan Erdem, Semih Baghaki, Azimet Özdemir, Kemalettin Yıldız (Turkey)
PPS 119	Ectopic Sngle Finger Transplantation, Repoting the "Piggy Back" Method Shahram Nazerani Adel Ebrahimipoor (Iran)
PPS 120	Replantation and revascularization in adult and children F Lembo, L Annacontini, D Parisi, A Portincasa (Italy)
PPS 121	Free Medial Plantar Perforator (MPAP) Flap for the Resurfacing of Finger Defect Ching-Hung Lai, Wen-Lung Liang, Chung-Sheng Lai, Sin-Daw Lin, Kao-Ping Chang (Taiwan)
PPS 122	A retrospective analysis of complications needing secondary surgery in a series of 851 local hand flaps T Karjalainen, S Sebastin, KG Chee, YP Peng (Finland)
PPS 123	Long term Follow-up after bilateral forearm replantation D Hager A Kastner R Schnelzer H Schoffl GM Huemer O Kwasny (Austria)
PPS 124	Thumb replantation B Popova Ruseva E Mateva St Georgiev (Bulgaria)
PPS 125	Perforator flap of forearm - Anatomy and Clinical Application AKY Choi, M Lam, PT Chan, YF Chan, YY Chow (Hong Kong)
PPS 126	10 years experience in digital replantations F Andrade, R Ide, A Bifani, M Méndez, J Breyer, X Ahumada, H Jimenez (Chile)
PPS 127	Modified Camitz opponensplasty using transverse carpal ligament loop pulley in patients with advanced carpal tunnel syndrome YG Chung, SW Kang, JY Lee, SW Song (South Korea)
PPS 128	Reconstruction of the medial collateral ligament of the elbow after de resection of paraarticular osification M R Morro, D Pacha, M Llusà, J Nardi, I Bori, C Martínez, S Rodríguez (Spain)
PPS 129	Are the extensor tendons of your patients safe on your first wrist arthroscopies? F Corella, M Ocampos, B Del Campo, D Escobar, M Del Cerro (Spain)
PPS 130	Dry arthroscopical treatment of a lunate cyst and a rupture of the TFCC E Correa Vazquez, A Isart Torruella, J Font Segura, X Mir Buño (Spain)

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SPISERIET MØLLER POSTERS FESSH

PPS 131	Permanent luxation of the distal radio-ulnar joint. Long term results S K Vilkki, J Havulinna, P Paavilainen, K Kask (Finland)
PPS 132	TFCC Reattachment after Traumatic Instability: A Simple Alternative to Arthroscopic Management G Mantovani, E Argintar, A Pavan (Brazil)
PPS 133	Microsurgical reconstruction of the wrist joint in children AV Govorov, SI Golyana, VI Zavarukhin (Russia)
PPS 134	Ultrasonographic research method in the diagnosis of injuries to triangular fibrocartilage complex Magdiev DA, Chulovskaya IG, Egiazaryan KA (Russia)
PPS 135	Ulnar head replacement-a series of 51 patients with maximum 10 year follow up DJ Warwick S Shyalaman E Balabanidou (UK)
PPS 136	Release of the cutaneous nerve in patients with allodynia H Arino, K Nemoto, M Amako, K Yamamoto, T Tsuchihara (Japan)
PPS 137	Effects of botulinum toxin-a injection on healing of repaired rabbit Achilles tendons and tensile strength S Tuzuner, S Incegolü, Ö Özkan, T Akkaya, N Erin, S Özkaynak (Turkey)
PPS 138	An anatomic study of the stabilizing ligaments of the trapeziometacarpal joint: role of the dorsoradial and deep anterior oblique ligaments in trapezium, Bennett and Rolando fractures C Lamas (Spain)
PPS 139	The effect of CD-HA application on autograft flexor tendon reconstructon in canine in vivo model FE Karabekmez, A Duymaz, PC Amadio, J Ikeda, SL Moran, K An, C Zhao (Turkey)
PPS 140	Longitudinal Motion of the Flexor Tendon and Subsynovial Tissue in Carpal Tunnel Syndrome: Ultrasound Assessment with Speckle Tracking and In Vivo Validation Y Yoshii, J Henderson, SL Moran, KN An, PC Amadio (Netherlands)
PPS 141	Influence of restrained stress on the sensory nervous system in a rat neuropathic pain model M Amako, K Nemoto, H Arino, K Yamamoto, Y Tsuda, T Tsuchihara (Japan)
PPS 142	Using Hall effect sensors in Detecting & monitoring nerve signals by Magnetic flux Roghie Hassanzadeh, Maghsood hassanzadeh (Iran)
PPS 143	Median nerve deformation in differential finger motions: ultrasonographic comparison of carpal tunnel syndrome patients and healthy controls AB Mink van der Molen, J Henderson, Y Yoshii, KN An, PC Amadio (Netherlands)
PPS 144	Prevention of Instability of the Proximal End of the Radius After Radial Head Resection Using an Anconeus Muscle Flap K Nishida, N Iwasaki, T Funakoshi, M Motomiya, A Minami (Japan)
PPS 145	Digastric olecranon osteotomy: feasibility study of a new approach to the elbow P Cottias K Camara P Liverneaux (France)
PPS 146	Double V-shaped supracondylar osteotomy of the humerus for the treatment of completely dislocated elbow combined with total elbow arthroplasty Hideki ishii, Kenji Tsunoda, Tomohito Yoshihara, Hirofumi Tanaka, Masamori Shigematsu, Akihiko Asami (Japan)

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SPISERIET MØLLER POSTERS FESSH

PPS 147	Clinical results and prognostic factors after surgical treatment for coronoid process fractures HJ Kang, IH Koh, YJ Kim, JG Lee, YR Choi (South Korea)
PPS 148	The radial capitellum fractures: surgical treatment options S Odella, R Sartore, F Torretta (Italy)
PPS 149	The result of fixation using PMMA external fixation for cubitus varus deformity Mehmet Ali Acar, Tunç Cevat, Ödün Hacı, Mustafa Özdemir, Hakan Denaran (Turkey)
PPS 150	Our experience with GPS II (Gravitational Platelet Separation) system in Chronic Epicondylitis in last 3 years Zs Gergely, G Kertész, G Janositz, Gy Kovács (Hungary)
PPS 151	Personal technique for carpometacarpal arthritis G Brunelli (Italy)
PPS 152	Universal Ž Total Wrist Arthroplasty: a mid-term follow-up study A Ferreres, A Lluch, M del Valle (Spain)
PPS 153	Te comparison of two surgical techniques for osteoarthritis of the trapeziometacarpal joint: interposition arthroplasty versus hematoma and distraction (Average Follow-up 6,8 years) M Corain (Italy)
PPS 154	“ForgetMeNot” a new digital tourniquet: procedures and benefits S Facca, S Gouzou, P Liverneaux (France)
PPS 155	Swanson-Prothesis in Bouchard Arthrose: is still indicated? K Moussa, A Martini (Germany)
PPS 156	The results of the treatment of thumb carpometacarpal arthritis by trapezium resection and modified thumb metacarpal suspension arthroplasty I Walaszek, A Zyluk (Poland)
PPS 157	Early results after Pyrocarbon interposition in partial trapezectomy R Legre, D Ould Ali, A Gay (France)
PPS 158	Pyrolytic Carbon Arthroplasty for the Proximal Interphalangeal joint S A Mashhadi, M A Pickford (UK)
PPS 159	A plastic surgical prosthetics department’s 5 year experience with the use of finger prostheses DA Dewing, KD Anderson, G Woolley, J McPhail, P McArthur (UK)
PPS 160	Treatment of Kienböck’s disease with vascular bundle implantation and temporary triscaphe arthrodesis; long term results M Ceruso, G Checcucci, E Russo (Italy)
PPS 161	Spearhead Procedure for Repair of Web Space Burn Sequelae in hand reconstruction M. Costagliola, A Midoni (Moldova)
PPS 162	The use of the reverse dorsal metacarpal flap in hand reconstruction - our experience of 18 clinical cases GM Verrega, A. Midoni (Moldova)
PPS 163	Thumb arthritis at stage 2; treatment by implant of pyrocarbon prosthesis: results and complications S Odella, R Sartore, F Torretta (Italy)

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SPISERIET MØLLER POSTERS FESSH

PPS 164	Mini-propeller flaps in fingers reconstruction A Georgescu, I Matei, F Ardelean, I Capota (Romania)
PPS 165	Management and outcomes of fingertip injuries in children S Sepehrpour, AJ Patel, M Kitcat, PH Gillespie (UK)
PPS 166	Injection of Botulinum Toxin in the upper limb: Accuracy of placement using manual palpation and surface markings KD Anderson, A El-Gawad, J McPhail, P McArthur (UK)
PPS 167	Mini-flaps based on dorsal digital and metacarpal arteries for digital reconstruction I Ignatiadis, D Arapoglou, V Tsiampa, G Konstantopoulos, E Drampalos, T Karinos, V Papakonstantinou, N Gerostathopoulos (Greece)
PPS 168	Distal Interphalangeal Joint Arthrodesis with Headless Compression Screw: Morphometric and Functional Analysis Il-Jung Park, Joo-Yup Lee, Yang-Guk Chung, Seok-Whan Song (South Korea)
PPS 169	Complications in wrist arthroplasty. Our Experience J Oteo, A Lovik, D Cecilia, P Merino (Spain)
PPS 170	Outcomes of using a virtual learning system to teach hand surgery V Rajaratnam (UK)
PPS 171	Palmar plate interposition arthroplasty of mp-joints in non-rheumatoid patients B von Maydell, M Richter (Germany)
PPS 172	Case Report: Initial experience with real-time intra-operative 3D imaging for sentinel lymph node biopsy (SLNB) in melanoma S Naji, A Tadros, J Traub, C Healy (UK)
PPS 173	A review of outcomes of modified soft tissue reconstruction for rheumatoid metacarpophalangeal joint (MCPJ) Swanson arthroplasty R Savage, U Abdulkadirr (UK)
PPS 174	Artelon CMC Spacer in treatment of basal thumb osteoarthritis A Melotto, G Pozzi, A Borgonovo (Italy)
PPS 175	Treatment of scapholunate dissociation by modified dorsal ligamentoplasty D Ira, I Cizmar, J Pilny, M Krticka, M Masek (Czech Republic)

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SPISERIET MØLLER POSTERS FESSH

PPS 176	Splinting for the treatment of thumb basal joint osteoarthritis M Okazaki, K Sato, T Nakamura, Y Toyama, H Ikegami (Japan)
PPS 177	Short to medium results using the re-motion total wrist replacement rheumatoid arthritis ASC Bidwai, F Cashin, G Wilson, A Richardson, DJ Brown (UK)
PPS 178	Statin-induced focal myositis of the upper extremity. A report of two cases M Wagner, B Hohendorff, R Schmitt, KJ Prommersberger (Germany)
PPS 179	Versatility of the saphenous vein graft to treat post traumatic ulnar artery thrombosis at Guyon'Canal: a report of 2 cases F Plotard, G Herzberg (France)
PPS 180	Supracondylar fractures with persistent circulatory failure after primary operative treatment, results more than 1 year after open exploration and revascularization C Grimsgaard, O Reigstad, R Thorkildsen, A Reigstad, M Røkkum (Norway)
PPS 181	Total wrist arthrodesis with two staples: Surgical Technique and Results J Jeudy, Z Belkheyar, S Durand, C Oberlin (France)
PPS 182	Replacement of finger joint mechanism in patients with osseointegrated titanium screws H Håkanson, A Björkman, G Lundborg, E Ståhl Wernersson (Sweden)
PPS 183	Analysis of different flap techniques for the reconstruction of the thumb A Bifani, G Morgan, F Andrade, A Hasbun, C Ibarra, D Amenabar (Chile)
PPS 184	Epidemiology and Socioeconomic Impact of Hand-Flexor-Tendon Injuries: Results of an extensive Literature Survey E Ntouveli, Z Dailiana (Greece)
PPS 185	CT arthrography of the wrist - Is it a useful investigation? S Shyamsundar, K Jeyapalan, J J Dias (UK)
PPS 186	Underwater camera case for intraoperative photography in hand surgery S Tuncer, T Ozkan (Turkey)
PPS 187	Cervantes and brachial plexus palsy DA Serin, A Aydin, HU Aydin, M Erer (Turkey)

END FRIDAY

SATURDAY 28 MAY 2011

HALL A	SESSION 19: CTS
08:00- 10:00	Chair: J Goubeau (Belgium), B Finsen (Norway)
08:00 OPS 172 / A-0046	The patient's point of view about informed consent (IC): a prospective study in carpal tunnel surgery S Brunetti, S Lucchina, G Garavaglia, C Fusetti (Switzerland)
08:08 OPS 173 / A-0047	Should aspirin be stopped before tunnel carpal surgery S Brunetti, L De Abate, G Garavaglia, S Lucchina, C Fusetti (Switzerland)
08:16 OPS 174 / A-0054	Interest of Canaletto® implant for recurrent carpal tunnel decompression: about 20 cases S Facca, A Bilasy, A Bureggah, S Gouzou, P Liverneaux (France)
08:24 OPS 175 / A-0065	A comparison of the effectiveness of carpal tunnel release in patients with CTS diagnosis based on only clinical vs clinical and electrophysiological grounds A Zyluk, Z Szlosser, P Puchalski (Poland)
08:32 OPS 176 / A-0073	The surgical zones of the carpal tunnel MJ Young, DA Campbell (UK)
08:40 OPS 177 / A-0097	Carpal tunnel release under local anaesthesia with or without epinephrine S Beeharry, P Michel (France)
08:48 OPS 178 / A-0100	Triggering of the digits following carpal tunnel surgery; a coincidence or a consequence? MA Acar, TC Ögün, N Karalezli (Turkey)
08:56 OPS 179 / A-0236	The auditory and visual reaction time in early stage of carpal tunnel syndrome R Hassanzadeh (Iran)
09:04 OPS 180 / A-0249	Open versus mini-open procedure for carpal tunnel release: A prospective randomised study I Iriberry, L Payán, S Lobato, M del Valle, C Canales, F Martínez (Spain)
09:12 OPS 181 / A-0315	Flexor retinaculum reconstruction after CTS release. Long term review of 248 cases A Lluch (Spain)
09:20 OPS 182 / A-0325	Changes in shape and displacement of the median nerve and tendons in the carpal tunnel; Parameters for assessment of carpal tunnel syndrome A Filius, J-WH Korstanje, Y Hoendervangers, HP Slijper, SER Hovius, RW Selles (Netherlands)
09:28 OPS 183 / A-0326	Carpal tunnel syndrome in children J Bahm (Germany)
09:36 OPS 185 / A-0389	Median nerve deformation and displacement in the carpal tunnel during index finger and thumb motion Y Yoshii, J Henderson, KN An, PC Amadio (Netherlands)
09:44 OPS 186 / A-0417	Carpal tunnel release: Comparison of the classic open technique with the a mini open technique S Varitimidis, N Karamanis, Z Dailiana, A Lagaras, K Malizos (Greece)

SATURDAY 28 MAY 2011

FORUM	SESSION 20: FRACTURES RADIUS 1
08:00-10:00	Chair: K Prommersberger (Germany), L Hove (Norway)
08:00 OPS 226 / A-0025	Complications following palmar plate fixation of distal radius fractures: A review of 665 cases P Esenwein, J Sonderegger, B Ellenrieder, J Gruenert (Switzerland)
08:08 OPS 227 / A-0095	Percutaneous pinning of distal radial fractures PS Alm-Paulsen, Ø Rød, K Rød, B Rajabi, H Russwurm, V Finsen (Norway)
08:16 OPS 228 / A-0111	A prospective comparison of self-reported outcome measures and satisfaction scores in patients treated with external fixation versus volar fixed angle plating of unstable closed distal radius fractures LG Warhold, KF Spratt, LS Eickhoff, KM Whyman (USA)
08:24 OPS 229 / A-0114	A prospective comparison of injury and surgical complications in patients treated with external fixation versus volar locking plating of unstable closed distal radius fractures LG Warhold, KF Spratt, LS Eickhoff, KM Whyman (USA)
08:32 OPS 230 / A-0130	Extensor tendon problems due to screw prominences related to palmar locking plating of distal radius TS Sığün, N Karabay, Y Gürbüz, K Özaksar, T Toros, M Kayalar (Turkey)
08:40 OPS 231 / A-0141	Arthroscopic assisted fixation of intra-articular distal radius fractures: A review of the literature and the results of our experience at Tygerberg hospital C Anley, A Ikram, S Pretorius (South Africa)
08:48 OPS 232 / A-0161	Risk factors for avulsion injuries of triangular fibrocartilage complex from the fovea of ulnar head in distal radius fractures BC Kwon, SJ Choi, BK Seo, HD Ryu (South Korea)
08:56 OPS 233 / A-0170	Do anti-oxidants modulate the outcome of fractures? A prospective randomized controlled trial M McQueen, C Court-Brown, S Ralston (UK)
09:04 OPS 234 / A-0177	Fixed angle volar plate reducing complications against non.fixed devices in the distal radius fractures.clinical outcomes in 105 patients A Toro, F Collado, P Martínez, S Carbó, C Blancas, A Yunta (Spain)
09:12 OPS 235 / A-0180	Effect on the disability of the upper extremity of conservative management of distal radius fractures. A prospective study P Aparicio, O Izquierdo, J Castellanos, L Costa, JM Soler, A Yunta (Spain)
09:20 OPS 236 / A-0371	Patient-reported disability during the two years following closed reduction and cast or external fixation of displaced distal radius fractures: A prospective cohort study E Brogren, P Wagner, M Petranek, I Atroshi (Sweden)
09:28 OPS 237 / A-0403	Homogeneous groups of patients in acute distal radius fractures? A prospective epidemiologic study about 406 patient G Herzberg, Y Izem, F Plotard, G Mezzadri (France)
09:36 OPS 238 / A-0406	Management of complex distal radius and ulnar fractures: Is the prosthesis of ulnar head a therapeutic option? JC Messina, F Torretta, U Dacatra, S Odella (Italy)
09:44 OPS 239 / A-0443	Low profile plates versus K-wire for treatment of unstable fractures of neck of fifth metacarpal G Kastanis, G Arealis, G Manolarakis, N Solidakis (Greece)
09:52 OPS 240 / A-0444	Open reduction and internal fixation versus indirect reduction and percutaneous fixation for unstable osteoporotic extrarticular distal radius fractures, in patients older than 65 years. G Kastanis, G Arealis, N Solidakis (Greece)

OPS=Oral presentation Surgeon / PPS = Poster Presentation Surgeon / INV=Invited Speaker

SATURDAY 28 MAY 2011

HALL D	SESSION 21: EWAS FREE PAPER SESSION
08:00- 10:00	Chair: T Lindau, UK, J-R Haugstvedt (Norway)
08:00 OPS 199	An Algorithm for Arthroscopy and Stabilization of Intra-articular Distal Radius Fractures T Whipple (USA)
08:15	Discussion
08:20 OPS 200	Clinical results of wrist arthroscopy assistance in articular distal radius fractures F Battistella, M Oldani, M Innocenti, D Prestamburgo (Italy)
08:30	Discussion
08:35 OPS 201	Arthroscopically assisted osteotomy for treatment of intraarticular malunions of the distal radius R Arora, M Gabl (Austria)
08:45	Discussion
08:50 OPS 2020	Isolated lesions of the dorsal capsule of the carpus: an unknown entity, description, technical repair C Mathoulin, N Kerfant (France)
09:00	Discussion
09:05 OPS 203	Diagnostic value of DRUJ arthroscopy T Nakamura, M Okazaki, K Sato, Y Toyama, H Ikegami (Japan)
09:20	Discussion
09:25 OPS 204	Arthroscopic reconstruction of proximal lesions of the TFCC in acute and chronic lesions EM Baur, S Smieja (Germany)
09:35	Discussion
09:40 OPS 205	Osteoscopy P Liverneaux (France)
09:50	Summary of session

SATURDAY 28 MAY 2011

AUDITORIUM	SESSION 22: MISCELLANEOUS
08:00- 10:00	Chair: H Coert (Netherlands), G Pajardi (Italy)
08:00 OPS 206 / A-0023	3D assessment of hand function RA Pearl, HJCR Belcher (UK)
08:08 OPS 207 / A-0030	Development of operative trauma hand surgery skills via simulator based surgical training - an affordable and successful course model S J Muzaffar, E N George, M U Anwar, S Majumder (UK)
08:16 OPS 208 / A-0078	Evaluation of post-operative comfort and early functional results in the treatment of basal thumb arthritis. Comparative prospective study of trapeziectomy with tendon interposition vs MAIA® prosthesis in 74 female patients T Jager, S Barbary, G Dautel, F Dap (France)
08:24 OPS 209 / A-0086	DASH and QuickDASH questionnaires; Average scores in the general population in Norway T Aasheim, V Finsen (Norway)
08:32 OPS 210 / A-0087	Cold intolerance after hand injuries. Disposing factors and long term prognosis L Lied, S Lydersen, V Finsen (Norway)
08:40 OPS 211 / A-0107	Measurement of grip force with a new sensor mat M Mühldorfer-Fodor, S Ziegler, C Harms, A Cristalli, A Kalpen, G Kundt, T Mittlmeier, KJ Prommersberger (Germany)
08:48 OPS 212 / A-0150	Effectiveness of interventions for secondary Raynaud's Phenomenon - a systematic review BMA Huisstede, P Hoogvliet, WD Paulis, M van Middelkoop, M Hausman, JH Coert, BW Koes (Netherlands)
08:56 OPS 214 / A-0195	The Hand Injuries In The Very young Population: A retrospective investigation of Etiology, Injury type and Treatment Modalities A Özdemir, MV Karaaltın, FN Yogun, AM Akkus, AC Akpınar, K Yıldız, SS Ergün, E Güneren (Turkey)
09:04 OPS 215 / A-0201	Vascularization of the trapeziometacarpal joint and its clinical importance J Goubau, Sz Benis, B Berghs, P Van Hoonacker, L Patonay (Belgium)
09:12 OPS 216 / A-0262	Changing incidence of sports-related wrist fractures between 1997 and 2007 in a population-based study CE de Putter (Netherlands)
09:20 OPS 217 / A-0266	Health care costs and productivity costs of hand and wrist injuries in a population-based study CE de Putter (Netherlands)

Program continues on the next page →

SATURDAY 28 MAY 2011

AUDITORIUM	MISCELLANEOUS (CONTINUED FROM PREV. PAGE)
09:28 OPS 218 / A-0283	The development of an outcome based community orientated curriculum for hand surgery education in the UK based on the current practice of a dedicated tertiary referral centre, incorporating the current views of stake holders on changes in the curriculum L Crawford, V Rajaratnam (UK)
09:36 OPS 219 / A-0298	A prospective randomized study between Burton and APL interposition-arthroplasty; - a 10 years follow up D Reiser, O Olesen, C Rude, K Pettersson (Sweden)
09:44 OPS 220 / A-0307	A prospective audit of patient satisfaction with the component parts of carpal tunnel decompression ASC Bidwai, H Benjamin-Laing, S Iqbal, D Shaw, WA Jones, DJ Brown (UK)
09:52 OPS 221 / A-0365	Relocation and/or wrapping of of painful neuromas associated with CRPS type II P Ducommun, T Giesen, N Müller, M Kleine, P Giovanoli, M Calcagni (Switzerland)
10:00 OPS 222 / A-0439	The HANDGUIDE study: European treatment guidelines for five non-traumatic hand disorders BMA Huisstede, P Hoogvliet, J Friden, J Soeters, AR Schreuders, HJ Stam, R Selles, SER Hovius, JH Coert (Netherlands)
10:08 OPS 223 / A-0454	Usefulness of B-mode and colour coded ultrasound sonography in hand surgery AH Haug (Germany)
10:16 OPS 224 / A-0504	Our experience in the treatment of trapezium metacarpal arthritis A De Mas, PL Merlo, M Impagnatiello, G Udali, R Turrini, R Mele (Italy)
10:24 OPS 225 / A-0533	Abductor pollicis longus tendon interposition for arthrosis of the first carpo-metacarpal joint. Long term results Lied L, Woje AC, Bjørnstad K, Finsen V (Norway)
10:00-10:30	COFFEE BREAK, EXHIBITIONS AND POSTER VIEWING

SATURDAY 28 MAY 2011

HALL A	SESSION 23: EWAS SYMPOSIUM: European wrist arthroscopy in a Scandinavian setting
10:30- 12:00	Chair: T Lindau (UK) J-R Haugstvedt (Norway)
10:30	Arthroscopy assisted reduction of intra-articular distal radius fractures and associated ligamentous injuries. How I do it! J Vasenius (Finland)
10:45	Discussion
10:50	Arthroscopic TFCC sutures in the 90's. The early Norwegian experience T Huseby (Norway)
10:58	Arthroscopic TFCC sutures today J-R Haugstvedt (Norway)
11:06	Discussion
11:10	Arthroscopic management of scaphoid fractures and its associated injuries P Jorgsholm (Denmark)
11:25	Discussion
11:30	Radio-Scapho-Capitate ligament injuries. Arthroscopic assessment of Mayfield 1 injuries in the absence of scaphoid fractures L Adolfsson (Sweden)
11:40	Discussion
11:45	Epidemiology and arthroscopically assisted treatment of multiple carpal injuries P Jorgsholm (Denmark)
11:55	Summary, Discussion and End of session

SATURDAY 28 MAY 2011

FORUM	SESSION 24: FRACTURES RADIUS 2
10:30- 12:00	Chair: P Saffar (France), Y Krukhaug (Norway)
10:30 OPS 187 / A-0011	Radiocarpal fracture-dislocations: a study of 22 patients EJL De Paula, R Mattar Jr, MR Rezende, EN Franca (Brazil)
10:38 OPS 188 / A-0020	Volar radioscapholunate arthrodesis as salvage procedure related to intraarticular hardware irritation after volar fixed angle plating in distal radius fractures C Pezzeri (Austria)
10:46 OPS 189 / A-0043	Effect of patient age on malunion of distal radius fractures subject to operative treatment N Hollevoet (Belgium)
10:54 OPS 190 / A-0069	Intraarticular AO type C fractures of the distal radius in young patients. Can we expect an early return to work with good functional and radiological results after surgical treatment? F Nienstedt, W Berger, A Obermair, S Huber, E Vorhauser (Italy)
11:02 OPS 191 / A-0079	Epidemiology of fractures of the distal radius SA Aitken, AD Duckworth, MM McQueen (UK)
11:10 OPS 192 / A-0090	Accurate radiographic measurement of the distal radial tilt B Rajabi, Ø Rød, K Rød, PS Alm-Paulsen, H Russwurm, V Finsen (Norway)
11:18 OPS 193 / A-0091	On the relationship between displacement and clinical outcome after Colles' fractures Ø Rød, K Roed, B Rajabi, PS Alm-Paulsen, H Russwurm, V Finsen (Norway)
11:26 OPS 194 / A-0156	Long locking compression plate fixation for distal radius fractures with metaphyseal and diaphyseal extension SK Lee, DW Seo, DS Yang, KJ Kim, WS Choy (South Korea)
11:34 OPS 195 / A-0257	Scaphoid lesion associated to severe comminuted fractures distal radius L Heras-Garcia, L Jabban (United Arab Emirates)
11:42 OPS 196 / A-0343	Finger flexion contracture following chronic tethering of the flexor digitorum profundus muscle after treatment of pediatric forearm fractures N Badur, Th Slongo, E Vögelin (Switzerland)
11:50 OPS 197 / A-0358	Conservative treatment of intra-articular distal radius fractures in patients under 65 years old E Papadogeorgou, A Koukoutsis, P Romoudis, K Nikolopoulos (Greece)
11:58 OPS 198 / A-0394	Surgical treatment of distal radius fractures in patients over 65 years. Our experience D Smarrelli, A Lazzerini (Italy)

SATURDAY 28 MAY 2011

HALL D	SESSION 25: ELBOW
10:30-12:00	Chair: F da Rin (Italy), A Odinson (Norway)
10:30 INV 9	Combined elbow injuries G Flugsrud (Norway)
10:55 OPS 241 / A-0022	Treatment of terrible triad without radial head replacement review of 16 cases L Farhadi, RS Kamrani (Iran)
11:03 OPS 242 / A-0094	Use of Coleman technique of fat grafting in the treatment of lateral epicondylitis A Mmoumas, JF Chabas, A Gay, R Legre (France)
11:11 OPS 243 / A-0145	Javelin thrower's elbow H Jaroma (Finland)
11:19 OPS 244 / A-0243	Mosaicplasty to treat osteochondritis dissecans of the elbow: Ten year follow-up in 4 athletes N Szakacs, P Hidas (Hungary)
11:27 OPS 245 / A-0462	Long-term results of the Outerbridge-Kashiwagi procedure in the treatment of the painful stiff elbow S Varitimidis, A Lagaras, Z Dailiana, A Zibis, K Malizos (Greece)
11:35 OPS 246 / A-0467	Distal humeral fractures treated with locked plates. How good are the outcomes? N Thumm, X Ahumada, G Morgan, S Von Unger, J Breyer, C Gomez, R Ide, D Amenabar (Chile)
11:43 OPS 247 / A-0472	Late ulnar nerve palsy after a lateral column procedure for stiff elbow V Psychoyios, S Thoma, A Kotsonis, I Kormpakis, F Villanueva-Lopez (Greece)
11:51 OPS 248 / A-0534	Ideal graft position of the lateral ulnar collateral ligament reconstruction Lee JS, Kang KS, Kang SY, Lee HJ, Yang JJ (South Korea)
HALL A	CLOSING REMARKS, FAREWELL AND WELCOME TO ANTWERPEN
12:00-12:30	Closing remarks, Farewell and Welcome to Antwerpen

END SATURDAY



Taking Things Into Your Own Hands –

Endoscopes And Instruments For Hand Surgery And Peripheral Nerve Surgery

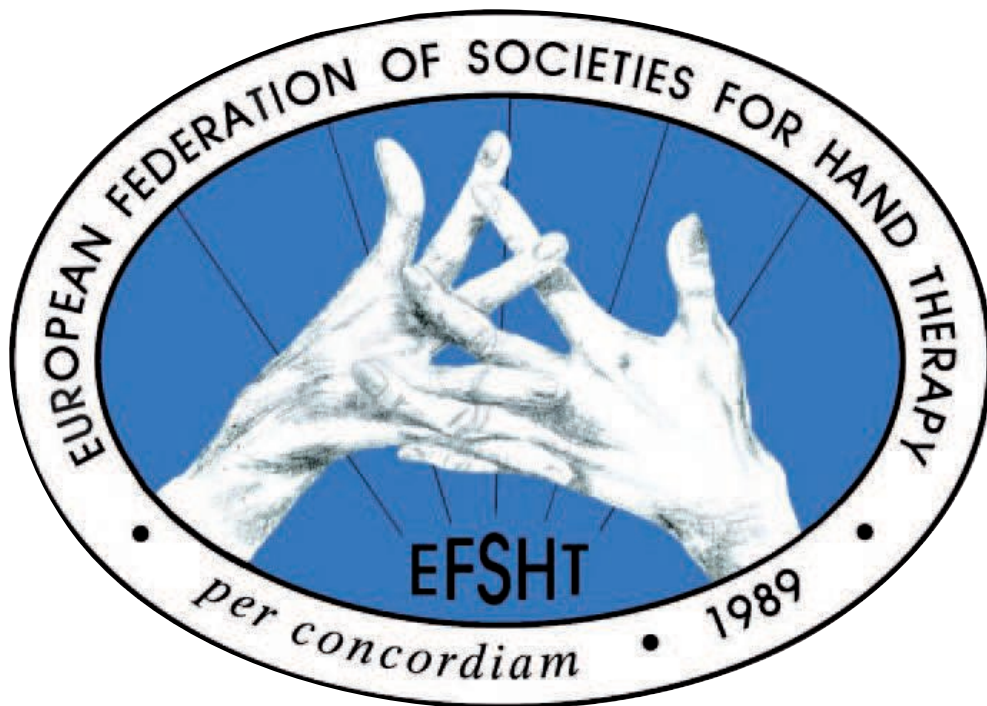


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KARL STORZ GmbH & Co. KG, Mittelstraße 8, D-78532 Tuttlingen/Germany, Phone: +49 (0)7461 708-0, Fax: +49 (0)7461 708-105, E-Mail: info@karlstorz.de
KARL STORZ Endoscopy America, Inc, 2151 E. Grand Avenue, El Segundo, CA 90245-5017, USA, Phone: +1 424 218-8100, Fax: +1 800 321-1304, E-Mail: info@ksea.com
KARL STORZ Endoscopia Latino-America, 815 N. W. 57 Av., Suite No. 480, Miami, FL 33126-2042, USA, Phone: +1 305 262-8980, Fax: +1 305 262-8986, E-Mail: info@ksela.com
KARL STORZ Endoscopy Canada Ltd., 2345 Argentia Road, Suite 100, Mississauga, Ontario L5N 8K4, Phone: +1 905 816-8100, Fax: +1 905 858-0933, E-Mail: info@karlstorz.ca
www.karlstorz.com



XTH EFSHT MEETING

THURSDAY 26 MAY 2011

AUDITORIUM		OPENING CEREMONY
08:30-09:00		Opening ceremony
AUDITORIUM		KEYNOTE LECTURE
09:00-10:00		Chair: I Jankov (Norway)
IST 1	Rehabilitation of the peripheral nerve injured hand - evolving concepts and future strategies B Rosén (Sweden)	
10:00-10:30		COFFEE BREAK, EXHIBITIONS AND POSTER VIEWING
AUDITORIUM		FREE PAPERS: NERVE- AND MAJOR HAND INJURIES
10:30-12:00		Chair: R Bhopal (UK), T Fairplay (Italy)
10:30 OPT 1	Carpal tunnel syndrome Part I: Effectiveness of non-surgical treatments - a systematic review BMA Huisstede, P Hoogvliet, MS Randsdorp, S Glerum, M van Middelkoop, BW Koes (Netherlands)	
10:42 OPT 2	Activity limitations before and after surgical carpal tunnel release among diabetic and non-diabetic patients R Cederlund, L Dahlin, N Thomsen (Sweden)	
10:54 OPT 3	The mirror therapy: Literature review D Zanin, A Malvicino, N Cosentino, (Italy)	
11:06 OPT 4	Patient activity gains after triceps reconstruction in tetraplegia J Wangdell, J Fridén (Sweden)	
11:18 OPT 5	Patients goal improvements do not correlate with functional factors in reconstructive tetraplegia hand surgery J Wangdell, J Fridén (Sweden)	
11:30 OPT 6	Return to work after a serious hand injury E Ramel, L Dahlin, HE Rosberg, R Cederlund (Sweden)	
11:42 OPT 7	Can sense of coherence be an indicator for rehabilitation focus in patients with a severe or major hand injury R Cederlund (Sweden)	

THURSDAY 26 MAY 2011

MEETING ROOM 1 FREE PAPERS: SPLINTING

10:30-12:00 **Chair:** G Versümer Bucker (Switzerland), G van Veldhoven (Norway)

10:30
OPT 15 **Wrist rehabilitation with the dart-splint: A preliminary experience**
F Braidotti, A Atzei (Italy)

10:42
OPT 16 **Rationale for the design of a thumb cmc orthosis that does not incorporate other joints**
JC Colditz (USA)

10:54
OPT 17 **Post-traumatic PIPj stiffness: Comparing treatment between serial casting and perforated, light and resistant thermoplastic tape**
I Saroglia, S Centaro (Italy)

11:06
OPT 18 **Evidence based static progressive splinting: A literature review**
DA Schwartz (USA)

MEETING ROOM 4 WORK SHOP: KINESIOTAPING FOR UPPER EXTRIMITY

10:30-12:00
WS1 **Kinesiotaping in treatment of oedema and scar tissue**
KK Rønhøj (Denmark)

12:00-13:30 **LUNCH SERVED IN THE EXHIBITION, POSTER VIEWING**

AUDITORIUM FOCUS SESSION: INSTRUMENTS TO ASSESS ACTIVITIES – FOCUS DASH

13:30-15:00 **Chair:** T Vaksvik, T Aasheim (Norway)

FC1 **Instruments to assess activities, with special focus on the DASH**
L Van de Ven-Stevens, (Netherlands), A Harth (Germany)

THURSDAY 26 MAY 2011

MEETING ROOM 1 FREE PAPERS: TENDONS

13:30-15:00 **Chair:** H van Bergh (Netherland), Å Lier (Norway)

13:30
OPT 19 **Influence of the position of the adjacent finger on the excursion of the FDP tendon in a Kleinert mobilization protocol**
JNM Soeters, JWH Korstanje, R Selles, AR Schreuders, SER Hovius, HJ Stam (Netherlands)

13:42
OPT 20 **Rehabilitation of flexor tendon avulsion fractures**
Y Ataker, S Comert Ece, N Canbulat, E Gudemez (Turkey)

13:54
OPT 21 **A comparison of controlled passive motion and early active motion following flexor tendon repair in zone 2: a pilot-study**
MH Eissens, S Romkema, JTW van Loenen, CK van der Sluis (Netherlands)

14:06
OPT 22 **Rehabilitation of the flexor pollicis longus repairs**
C Laffargue, A Dinh (France)

14:18
OPT 23 **Zone 1 Extensor tendon injury: How to rehabilitate after the surgery of bony avulsion**
S Comert Ece, Y Ataker, N Canbulat, O Cerezci, E Gudemez (Turkey)

14:30
OPT 24 **Modified relative motion splinting of Zone V & VI extensor tendon repairs**
MJ Hirth, K Bennett, E Mah, H Farrow (Australia)

14:42
OPT 25 **Evaluation of the effectiveness of the conservative treatment with night splint in de Quervaines syndrome: Retrospective observational study**
S De Santis, P Bortot, L Pegoli, V Padovan, G Pajardi (Italy)

MEETING ROOM 4 WORKSHOP: MANUAL EDEMA MOBILIZATION (MEM)

13:30-15:00
WS 2 **Edema reduction based on the lymphatic system's ability to drain sub-acute edema**
KK Rønhøj, (Denmark)

15:00-15:30 **COFFEE BREAK, EXHIBITION AND POSTER VIEWING**

THURSDAY 26 MAY 2011

AUDITORIUM	FREE PAPERS: ASSESSMENT
15:30-17:00	Chair: Chair: B Rosén (Sweden), CP Rosales (Norway)
15:30 OPT 8	Inter rater reliability of finger joints measurement in Dupuytren's Disease C Engstrand, B Krevers, J Kvist (Sweden)
15:42 OPT 9	Disability of the arm, shoulder and hand (DASH) and QuickDASH. Normal values in the general Norwegian population T Aasheim, V Finsen (Norway)
15:54 OPT 10	Research project: A systematic process to develop hand therapy guidelines on assessment L van de Ven-Stevens, M Graff, P Spauwen, H van der Linde, S Geurts (Netherlands)
16:06 OPT 11	Results of the international ICF consensus conference on the ICF core sets for hand conditions KD Rudolf, S Kus, M Coenen, C Dereskewitz, L van de Ven-Stevens, A Cieza (Netherlands)
16:18 OPT 12	Fingers joints angular parameters during a grip of commonly used objects based on a 3-D motion analysis M Pieniazek, T Bazanski (Poland)
16:30 OPT 13	The concurrent validity of screening of activity limitation and safety awareness (SALSA) in persons affected by leprosy U Wijk, J W Brandsma, M Björk (Sweden)
16:42 OPT 14	Diagnostic accuracy of provocative wrist tests R Prosser, L Harvey, P LaStayo, I Hargreaves, P Scougall, R Herbert (Australia)
MEETING ROOM 1	WORKSHOP: HAND AND BRAIN: MIRROR THERAPY
15:30-17:00 WS 3	HAND AND BRAIN IN THEORY AND PRACTICE. MIRROR THERAPY N Grünert-Plüss, J Grünert (Switzerland)
MEETING ROOM 4	WORKSHOP: KNOW YOUR HANDS; YOUR OWN AND YOUR PATIENTS'
15:30-17:00 WS 4	W Brandsma (Netherlands) T Schreuders (Netherlands)

END THURSDAY

FRIDAY 27 MAY 2011

HALL A	DISTAL RADIUS FRACTURES	Joint session FESSH/EFSSH
08:00-10:00	Chair: H Kvernmo, T Aasheim (Norway)	
See page 95 for the corresponding abstracts		
08:00	Epidemiology of distal radius fractures L Hove (Norway)	
08:10	Evolution and anatomy of the wrist M Tamai (Japan)	
08:25	Unstable distal radius fractures Y Krukhaug (Norway)	
08:35	Current state of management of distal radius fractures K Prommersberger (Germany)	
09:05	Outcome measurements J MacDermid (Canada)	
09:20	Complications after operative treatment of distal radius fractures J Williksen (Norway)	
09:35	Rehabilitation after distal radius fractures J MacDermid J (Canada)	
This session will continue after the coffee break with focus on surgery		
MEETING ROOM 1	FOCUS SESSION: CHILDREN'S HAND FUNCTION	
08:30-10:00	Chair: G van Veldhoven (Norway)	
FC 2	How can children's hand function be measured? L Krumlinde-Sundholm, (Sweden) ,G van Veldhoven (Norway)	
10:00-10:30	COFFEE BREAK, EXHIBITION AND POSTER VIEWING	

FRIDAY 27 MAY 2011

AUDITORIUM	FREE PAPER: MISCELLANEOUS
10:30-12:00	Chair: A Elmstedt (Sweden), S Ewald (Switzerland)
10:30 OPT 26	Thumb pinch pattern, movement or function P-I Vicenç, S Rivalda Enric (Spain)
10:42 OPT 27	Core Stabilization: A promising approach to the upper extremity injuries C Ayhan, E Unal (Turkey)
10:54 OPT 28	Forces required for package opening - a comparison of hand patients with normative data M Marks, C Muoth, S Schindele, I Schreib, A Liebmman, J Goldhahn (Switzerland)
11:06 OPT 29	A randomized clinical controlled study comparing the of modified manual edema mobilization treatment with traditional edema technique in patients with a fracture of the distal radius K Knygsand Rønhøj, CLT T Maribo, PT, MHS (Denmark)
11:18 OPT 30	Oedema treatment of the hand: Comparison between compressive bandage and zinc oxide bandage P Boccolari, A Nesti, F Tondelli, S Sartini, (Italy)
11:30 OPT 31	Evaluation of different oedema treatment regimens to minimize resistance in range of motion J Wangdell, A-S Lamberg, J Fridén, (Sweden)
11:42 OPT 32	Neuromuscular and proprioceptive rehabilitation of the hand and wrist in athletes and heavy duty Labourers after TFCC Triangular Fibrocartilage Complex Reconstruction T Fairplay, R Luchetti (Italy)

FRIDAY 27 MAY 2011

MEETING ROOM 1 WORKSHOP: SPLINTING THE PAEDIATRIC HAND

10:30-12:00 M Persson (Sweden), G van Veldhoven (Norway)
WS 5

12:00-14:00 LUNCH SERVED IN THE EXHIBITION, POSTER VIEWING

AUDITORIUM FOCUS SESSION: THE PROPRIOCEPTIVE HAND

14:00-15:00 **Chair:** P de Bruck (Belgium), T Schreuders (Netherlands)

FC 3 **The Science of the Proprioceptive Hand**
E Hagert (Sweden)

FC 4 **Neuromuscular Stability of the Wrist**
G Salva (Spain)

FC 5 **Clinical Applications of Wrist Proprioception**
M Garcia-Elias (Spain)

FRIDAY 27 MAY 2011

MEETING ROOM 1 FREE PAPERS: THE CHILD'S HAND

14:00-15:00 Chair: N Burr (UK), M Persson (Sweden)

14:00
OPT 33 Hand splints in children with cerebral palsy, effects of maintained or disrupted use
L Krumlinde-Sundholm, M Persson, E Arnemo (Sweden)

14:12
OPT 34 Goals and challenges in postoperative rehabilitation in a rare case of syndactyly
APP Ratier, LFA Ferreira, MT Ishikawa (Brazil)

14:24
OPT 35 Low impact of congenital hand differences on health-related quality of life
MS den Hollander-Ardon, RW Selles, SER Hovius, HJ Stam, WGM Janssen (Netherlands)

14:36
OPT 36 Health-related quality of life in children with congenital hand differences: parent-child agreement
MS den Hollander-Ardon, WGM Janssen, SER Hovius, HJ Stam, RW Selles (Netherlands)

15:00-15:30 COFFEE BREAK, EXHIBITION AND POSTER VIEWING

AUDITORIUM FOCUS SESSION: FUTURE CHALLENGES IN HAND THERAPY

15:30-16:30 Chair: R Cederlund (Sweden), TB Lurie (Norway)

15:30
FC 6 Future challenges in Hand Therapy
J MacDermid (Canada)

15:42
FC 7 Treatment Guidelines
BMA Huisstede (Netherlands)

15:54
FC 8 Quantitative or qualitative research - that is the question?
R Cederlund (Sweden)

16:06
FC 9 ECHT European Certified Hand Therapist
A Harth (Germany)

16:18 Certification of the first EFSHT Hand Therapist

FRIDAY 27 MAY 2011

MEETING ROOM 1 FREE PAPERS: OSTEOARTHRITIS AND ARTHROPLASTIES

15:30-16:30 Chair: U Wendling-Hosch (Switzerland), T Kalheim (Norway)

15:30
OPT 37 **Total wrist arthroplasty in a high demand patient group. Report from a prospective clinical study with the Motec wrist prosthesis developed at our department**
T Lütken, O Reigstad, B Bolstad, S Roness, M Røkkum (Norway)

15:42
OPT 38 **Rehabilitation after total wrist arthroplasty in rheumatoid patients**
G Guidi, M Ceruso, S Pfanner (Italy)

15:54
OPT 39 **PIP Pyrocarbon prosthetic replacement using a lateral surgical approach: Post-operative rehabilitation protocol with early active motion**
G Guidi, M Ceruso, S Pfanner (Italy)

16:06
OPT 40 **Rehabilitation protocol after suspension arthroplasty of thumb basal joint osteoarthritis**
Y Ataker, S Comert Ece, N Canbulat, A Gulgonen, E Gudemez, (Turkey)

16:18
OPT 41 **Outcome measures in surgical and conservative management of trapeziometacarpal osteoarthritis - a systematic literature review**
M Marks, J Goldhahn, C Kolling, C Muoth, J Schoones, D Herren, RGH Nelissen, TPM Vliet Vlieland (Switzerland)

AUDITORIUM CLOSING CEREMONY

16:30-17:00 Closing Ceremony

AUDITORIUM GENERAL ASSEMBLY

17:00-17:45 NFH General Assembly (Årsmøte - Norsk forening for håndterapi)

19:30 CONGRESS DINNER AT THE OSLO OPERA HOUSE

FRIDAY 27 MAY 2011

SPISERIET MØLLER EFSHT POSTERS

PPT 1	Range of motion for patients with Dupuytren's contracture three months after surgery and rehabilitation L Borén, C Engstrand (Sweden)
PPT 2	Clinimetric evaluation of measurement tools used in hand therapy to assess activity and participation K Schoneveld (Netherlands)
PPT 3	Validation of the Michigan hand outcomes questionnaire-Dutch language version in patients with Dupuytren's disease K Schoneveld (Netherlands)
PPT 4	Assesing hand grip strength of upper extremities: A comparative study F Altug, N Buker, E Kavlak, U Cavlak (Turkey)
PPT 5	Analysing the reliability of DASH in three parts of the upper extremity separately C Ayhan, E Unal, Y Yakut, (Turkey)
PPT 6	Assisting hand assessment (AHA); A further elaboration and validation for adult handprosthesis users P Vikström, L Krumlinde-Sundholm, C Ragnö, A Stockselius, B Rosén (Sweden)
PPT 7	Influence of the elbow position in measuring pro- and supination of the forearm GJ Kroon, S Brink (Netherlands)
PPT 8	The use of daily activities in assessment tools for mapping hand-function - a systematic review TA Magne, AV Pedersen (Norway)
PPT 9	Comparison of static and dynamic splinting regimens for extensor tendon repairs in zones V to VII A Kitis, RH Ozcan, D Bagdatli, IG Kara (Turkey)
PPT 10	Short term functional results of local corticosteroid injections at the management of shoulder pain N Buker, S Akkaya, N Akkaya, A Kitis, C Yorukoglu (Turkey)
PPT 11	A review of orthoses to increase function after radial nerve injury E Seeley, M Szekeres, J Rooney (Canada)
PPT 12	3D anatomy glove learning system for teaching and refreshing hand anatomy knowledge AM Agur (Canada)
PPT 13	Use of silastic tubes to optimise skin healing after complex digital injuries AL Garel, G Mezzadri, G Herzberg (France)
PPT 14	Use of Neopren Splint to treat post-traumatic PIP joint flexion deformity V Duclos, F Plotard, G Herzberg (France)

FRIDAY 27 MAY 2011

SPISERIET MØLLER EFSHT POSTERS

PPT 15	Enhancing Function through Tendon Transfers DA Schwartz (USA)
PPT 16	Complete closed FDP rupture, presenting with active DIP flexion SJM Knijnenburg-Janse, TAR Schreuders, HP van Not (Netherlands)
PPT 17	X-Lite and Neoprene Splint Combinatin Technique RC Tellez (Spain)
PPT 18	Early Active motion in zone 2. Results RC Tellez (Spain)
PPT 19	Morphological assessment of a musician's hand, applied to physiotherapy S Del Valle Acedo (France)
PPT 20	Effectiveness of interventions for secondary Raynaud's Phenomenon - a systematic review BMA Huisstede, P Hooglyet, WD Paulis, M van Middelkoop, M Hausman, JH Coert, BW Koes (Netherlands)
PPT 21	The sprain of the ulnar ligament (LLU) of the metacarpophalangeal joint (MCP) of the thumb; The particularities of the rehabilitation C Le Lardic (France)
PPT 22	The use of neoprene tube finger in the treatment of proximal interphalangeal flexion stiffness E Mancon, S Paparo, P Rossi, G Pajardi (Italy)
PPT 23	Rehabilitation of the nerve compression syndromes of the upper limb, about a continuous set bi operator of 65 cases seen in 2006 F Degez, C Blouin, Y Saint Castes, G Raimbeau (France)
PPT 24	Thumb fractures : rehabilitation and splinting following intra-articular fracture of the trapezometacarpal joint S Celerier, C Camps, M Isel, M Merle (France)
PPT 25	Small hands- big challenges! Palmar burns in children C Sivertsen (Norway)
PPT 26	Comparative measures of the instantaneous strength by tightening the fist in pronation and supination. (based on a sample of 301 cases) F Bouillot, F Degez, J Arnault, B Largenton, JM Marion (France)
PPT 27	Does wrist immobilization following carpal tunnel release improve functional outcome? A literature review SM Isaac, T Okoro, I Dania, C Wildin (UK)
PPT 28	Silicone, pressure therapy and massage in hand scars management: a review of the literature V Padovan, S Seppi, V Ferrario, G Pajardi (Italy)
PPT 29	The Introduction of a Certificate of Advanced Studies in Hand Therapy Program in Switzerland S Ewald, C Struchen, V Beckmann-Fries (Switzerland)

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Fairplay	T	A 0005
Farrow	H	A 0071
Ferreira	LFA	A 0049
Ferrario	V	PPT 28
Finsen	V	A 0034
Fridén	J	A 0078
Fridén	J	A 0079
Fridén	J	A 0082
G		
Garel	AL	PPT 13
Geurts	S	A 0035

Glerum	S	A 0028
Goldhahn	J	A-0080
Goldhahn	J	A 0081
Graff	M	A 0035
Gudemez	E	A 0024
Gudemez	E	A 0030
Gudemez	E	A 0057
Guidi	G	A 0022
Guidi	G	A 0033
Gulgonen	A	A 0030
H		
Hardman	A	A 0013
Hargreaves	I	A 0096
Harvey	L	A 0096
Hausman	M	PPT 20
Herbert	R	A 0096
Herren	D	A 0081
Herzberg	G	PPT 13
Herzberg	G	PPT 14
Hirth	MJ	A 0071
Hoogvliet	P	A 0028
Hoogvliet	P	PPT 20
Hovius	SER	A 0015
Hovius	SER	A 0050
Hovius	SER	A 0051
Huisstede	BMA	A 0028
Huisstede	BMA	PPT 20
I		
Isaac	SM	PPT 27
Isel	M	PPT 24
Ishikawa	MT	A 0049
J		
Janssen	WGM	A 0050
Janssen	WGM	A 0051
K		
Kara	IG	PPT 9
Kavlak	E	PPT 4
Kitis	A	PPT 9
Kitis	A	PPT 10
Knijnenburg-J.	SJM	PPT 16

Knygsand R.	K	A 0004	Okoro	T	PPT 27	Sartini	S	A 0032
Koes	BW	A 0028	Ozcan	RH	PPT 9	Schindele	S	A 0080
Koes	BW	PPT 20	P			Schoneveld	K	PPT 2
Kolling	C	A 0081	Padovan	V	A 0075	Schoneveld	K	PPT-3
Korstanje	JWH	A 0015	Padovan	V	PPT 28	Schoones	J	A 0081
Krevers	B	A 0006	Pajardi	G	A 0075	Schreib	I	A 0080
Kroon	GJ	PPT 7	Pajardi	G	PPT 22	Schreuders	AR	A 0015
Krumlinde-S.	L	A 0069	Pajardi	G	PPT 28	Schreuders	TAR	PPT 16
Krumlinde-S.	L	PPT-6	Paparo	S	PPT 22	Schwartz	DA	A 0070
Kus	S	A 0037	Paulis	WD	PPT 20	Schwartz	DA	PPT 15
Kvist	J	A 0006	Pavli	E	A 0090	Scougall	P	A 0096
L			Pavli	E	A 0091	Seeley	E	PPT 11
Laffargue	C	A 0046	Pedersen	AV	PPT 8	Selles	R	A 0015
Largenton	B	PPT 26	Pegoli	L	A 0075	Selles	RW	A 0050
Lamberg	AS	A 0078	Persson	M	A 0069	Selles	RW	A 0051
LaStayo	P	A 0096	Pfanner	S	A 0022	Seppi	S	PPT 28
Le Lardic	C	PPT 21	Pfanner	S	A 0033	Sivertsen	C	PPT 25
Liebmann	A	A 0080	Pieniazek	M	A 0092	Soeters	JNM	A 0015
Luchetti	R	A 0005	Plotard	F	PPT 14	Spauwen	P	A 0035
Lütken	T	A 0065	Prosser	R	A 0096	Stam	HJ	A 0015
M			PT		A 0004	Stam	HJ	A 0050
Magne	TA	PPT 8	R			Stam	HJ	A 0051
Mah	E	A 0071	Ragnö	C	PPT 6	Stockselius	A	PPT 6
Malvicino	A	A 0011	Raimbeau	G	PPT 23	Struchen	C	PPT 29
Mancon	E	PPT 22	Ramel	E	A 0060	Szekeres	M	PPT 11
Maribo	CLTT	A 0004	Randsdorp	MS	A 0028	T		
Marion	JM	PPT 26	Ratier	APP	A 0049	Tellez	RC	PPT 17
Marks	M	A 0080	Reigstad	O	A 0065	Tellez	RC	PPT 18
Marks	M	A 0081	Rivalda-Enric	S	A 0062	Thomsen	N	A 0059
Merle	M	PPT 24	Romkema	S	A 0025	Tondelli	F	A 0032
Mezzadri	G	PPT 13	Roness	S	A 0065	U		
MHS		A 0004	Rooney	J	PPT-11	Unal	E	A 0067
Muoth	C	A 0080	Rosberg	HE	A 0060	Unal	E	PPT-5
Muoth	C	A 0081	Rosén	B	PPT 6	V		
N			Rossi	P	PPT 22	Van de Ven-Stevens L		A 0035
Nelissen	RGHH	A 0081	Rudolf	KD	A 0037	Van de Ven-Stevens L		A 0037
Nesti	A	A 0032	Røkkum	M	A 0065	Van der Linde	H	A 0035
O			S			Van der Sluis	CK	A 0025
O'Brien	L	A 0013	Saint Castes	Y	PPT 23	Van Loenen	JTW	A 0025
O'Brien	LJ	A 0014	Saroglia	I	A-0068	Van Middelkoop	M	A 0028

Van Not	HP	PPT 16
Van Velze	C	A 0091
Vicenç	P-I	A 0062
Vikström	P	PPT n6
Vliet Vieland	TPM	A 0081
W		
Wangdell	J	A 0078
Wangdell	J	A 0079
Wangdell	J	A 0082
Wijk	U	A 0093
Wildin	C	PPT 27
Y		
Yakut	Y	PPT 5
Yorukoglu	C	PPT 10
Z		
Zanin	D	A 0011
Å		
Åsheim	T	A 0034

ABSTRACTS

JOINT SESSIONS

FESSH / EFSHT

EPIDEMIOLOGY OF DISTAL RADIUS FRACTURES

Mr. Leiv M. Hove, MD, PhD, Professor

Department of Surgical Sciences, University of Bergen (Norway)

Fracture of the distal radius is the most common fracture and accounts for 15-20% of all fractures. The population of Norway has the highest incidence of distal radius fracture reported. The purpose of this presentation is to discuss epidemiological studies on distal radius fractures.

Methods: In Norway we have performed epidemiological studies of fractures of the distal radius in urban and rural areas. The studies were performed among patients $\rightarrow$ 20 years of age in Oslo in 1979 and 1999, Bergen in 1988, and in Aust-Agder (rural) in 1996, respectively.

Results: The mean (range) ages in the different series were 63 (20-96) years for women in Bergen, and 69 (20-99) years in Oslo; - for men 47 (20-91) years in Bergen and 51 (20-92) years in Oslo, respectively. The annual fracture incidence was 38 per 10.000 (95% CI 35-41). The age-adjusted fracture rates per 10.000 for the age group $\rightarrow$ 50 years were 114 for women i Bergen, 108-110 in Oslo (1988 and 1999, respectively), and 90 in Aust-Agder. Similar numbers for women below 50 years of age were 14, and for men 17. For men the number of fractures was more or less constant throughout the years. Age and sex-specific incidence rates in women rise steeply after menopause, stabilise or even fall in higher age. Seventy-nine percent of the fractures were in women, and low-energy traumas accounted for 81% of the fractures. The activities leading to fracture differ

between men and women. In men most fractures occur in working or sports activities, in women more fractures are related to home activities. For both men and women most fractures occur while walking outdoors, which makes the weather an important factor. We found seasonal variation in fractures from low-energy trauma in women, with a fourfold increase (mean 4, range 1-11) in incidence rates on days with temperatures below freezing point (- opposite in children with highest incidence in summer months). The relative risk of fractures in immigrants from Asia was 0.72 (95% CI 0.53-1.00) compared with ethnic Norwegians. Thirty to fifty percent of the patients with fractures from low-energy trauma met the criteria for osteoporosis according to the WHO-definitions (T-score $\leftarrow$ -2.5: 31%, T-score $\leftarrow$ -2.0: 51%). Ten percent of the patients with distal radius fractures had simultaneous fractures of other bones.

Conclusions: The incidence rates of distal radius fracture in Norway are higher in urban than in rural areas, and higher in ethnic Norwegians than in immigrants. The Norwegian studies (and most other series) show that the age-specific incidence of distal radius fractures in women plateaued after the age of 60. Only 30% to 50% of the patients with fractures from low-energy trauma met the criteria for osteoporosis. These findings indicate that factors other than bone mass may contribute to the fracture: the type of trauma, the tendency to fall, the type of fall, and the associated protective responses.

EVOLUTION AND ANATOMY OF THE WRIST JOINT

Mr. Makoto Tamai, MD, PhD

Department of Orthopaedic Surgery, Sapporo Medical University, Sapporo, Hokkaido (Japan)

In the history of evolution, the human wrist joint obtained a great mobility by freeing hands from locomotion and by handling tools. It is mentioned that the acquirement of mobile DRUJ is one of the hallmarks of the late-evolving hominids, in marked contrast with the syndesmotric DRUJ in most animals. The increasing mobility of the wrist joint promoted development of the triangular fibrocartilage complex (TFCC).

The wrist joint consists of five bony components: 1) radius; 2) ulna; 3) proximal carpal row; 4) distal carpal row; and 5) pisiform. These components are connected with extrinsic (capsular) ligaments and construct four functional joints: 1) distal radioulnar joint (DRUJ); 2) radiocarpal joint; 3) midcarpal joint; and 4) pisotriquetral joint. The capsular ligaments of the wrist joint are classified into following five groups: dorsal radiocarpal ligament (DRCL); dorsal intercarpal ligaments (DICL); palmar radiocarpal ligaments (PRCL); palmar intercarpal ligaments (PICL); and palmar ulnocarpal ligaments (PUCL).

The PRCL have significant appearance compared with the PUCL. The radioscapohcapitate ligament (RSCL) was divided into three bundles according to their carpal attachments, i.e. radioscapohoid bundle (RSB), radio-capitate bundle (RCB) and radiotriquetral bundle (RTB). Regarding to the long radiolunate ligament (LRLL), a continuous bundle between radius and triquetrum parallel to the RTB covered the distal one third of palmar aspect of the LRLL and the palmar lunotriquetral ligament (PLTL). The short radiolunate ligament (SRLL) seemed to be an elastic ligament that made up the

inner palmar wall of the radiocarpal joint capsule. Five ligaments attach to or surround the TFCC: ulnolunate ligament (ULL), ulnocapitate ligament (UCL), ulnotriquetral ligament (UTL) and palmar and dorsal radioulnar ligaments (PRUL and DRUL). PRUL and DRUL both divide into proximal (= deep) and distal (= proximal) bundles at their attachments to the ulna. Their proximal fibers interdigitate with PUCL and attach to fovea of the ulnar head; their distal fibers attach to tip of the ulnar styloid process (USP) surrounded by the PUCL and the distal extension of PRUL. Since the ulnar portion of the PUCL and the radioulnar ligaments (RUL) were not clearly separable, they can be called the "palmar radioulnar-ulnocarpal ligamentous complex (PRUULCL)" that is the main ligamentous support of TFCC.

The TFCC consists of RUL, articular disc, meniscus homologue, sheath of extensor carpi ulnaris (ECU) tendon, PUCL and ulnar capsule, and acts as a major stabilizer of DRUJ. The articular disc is contained within the RUL. The meniscus that is considered as a spacer in the synovial joint cavity exists attached on the dorsal and palmar wall of the ulnar sided wrist capsule. The ECU tendon sheath unites with the dorsal aspect of the ulnar capsule. The prestyloid recess that can be seen at the most ulnar corner of the TFCC is considered as a tunnel through which the ulnar head was excluded from the wrist joint and became the USP during the evolutionary process.

The existence of wide anatomical variations around the ulnar wrist may suggest that the human wrist is still on its way of evolution.

UNSTABLE DISTAL RADIUS FRACTURES. MEANING AND RELEVANCE

Mr. Yngvar Krukhaug, MD, PhD, Associate Professor

Consultant Orthopaedic Surgeon, Haukeland University Hospital, Bergen (Norway)

The subject of instability in fractures of the distal radius has been the focus of considerable interest for many years. Various factors, such as severe dorsal comminution, important dorsal angulation and radial shortening, and advanced age, have been associated with the secondary displacement seen in this type of fracture. It is assumed that there is a correlation between the severity of the primary displacement and the loss of reduction. There is also general agreement that there is a close relationship between anatomy and function.

The treatment of unstable distal radius fractures has also been the focus of considerable interest for the latest years, especially after the introduction of the angular stable distal radius plates.

Stable fractures can be managed conservatively, with good anatomical and functional results.

Various studies have defined factors that are predictive of instability.

An unstable distal radius fracture is classified according to the following anatomical criteria based on the radiological study on admission:

- Dorsal angulation more than 20°
- Dorsal comminution
- Intra-articular radiocarpal fracture associated
- Ulnar fracture

These criteria, as well as age over 60 years, were considered as factors of instability capable of inducing secondary displacement.

In earlier days standard initial management of a displaced fracture was closed manipulation followed by application of a cast. Instability was diagnosed by radiographic examination between one and two weeks later. If appropriate, definitive surgical treatment was instituted at that stage for fractures displaying early instability. However, fractures that exhibited instability after two weeks were not detected by this management protocol.

In a study by Mackenney et al. in 2006 prediction of instability in distal radius fractures, as comminution, initial dorsal angulation, ulnar variance, carpal alignment and age, has been outlined.

The treatment options of unstable fractures of the distal radius include plaster of Paris combined with pins, external fixators (bridging, non-bridging and dynamic) that may be combined with pins, and ORIF with plates (angular stable or standard, dorsal or volar). There is little evidence in the literature to help surgeons choose among these methods in the individual patient with unstable fractures. Thus, to some degree expertise and tradition determine the mode of treatment at different centres.

CURRENT STATE OF MANAGEMENT OF DISTAL RADIUS FRACTURES

Mr. Karl-Josef Prommersberger, Professor

Klinik für Handchirurgie, Bad Neustadt (Germany)

Our goal in treating patients with distal radius fractures is anatomic reduction as base of an optimal hand and wrist function. In order to gain this goal, distal radius fractures are approached by three questions:

1. Who is the patient?
2. What is the extend of articular involvement?
3. What is the integrity of metaphyseal support?

The first question highlights the role of the patient interview and examination. The history and physical examination should include, age, occupation, daily activity level, and general medical condition. The second question addresses the extent of fractures involving the articulations between the radius and the proximal carpal row, and the radius with the ulnar head. The final outcome on distal radius fractures depends primarily on residual joint stability and the presence or absence of posttraumatic arthritis of the DRUJ. For the radiocarpal joint surface of the distal radius it is generally accepted that a greater than 2 mm step offs or gaps is likely to lead to an unacceptable outcome. In addition, radial styloid fractures with the fracture line ending at the scapho-lunate gap should be suspected of the concurrence of the distal radial fracture with a scapho-lunate dissociation. The third question directs the surgeon to determine the metaphyseal support. If the volar metaphysis is involved the fracture may be reducible but will never maintain reduction. Dorsal fractures with involvement of greater than one-third of the sagittal diameter of the radius metaphysis may redisplace despite excellent close reduction, because those fractures are inherently unstable. Extensive metaphyseal comminution with involvement of both the dorsal and volar metaphysis makes it more difficult to restore the alignment of the distal fragments and leaves them with little or no bone-to-bone contact to help prevent loss of alignment despite external fixation with or without ancillary K-wires or internal fixation with a single dorsal or volar plate.

Treatment options for fractures of the distal radius can be divided into non-operative or operative treatment. The surgical options of treatment of distal radial fractures can be categorized into three main tools that may be used individually or in combination to obtain stability: percutaneous pinning, external fixation, and internal fixation. Whether patients have a non-displaced fracture requiring a minimal degree of immobilization or a markedly displaced fracture requiring open reduction and internal fixation, all patients need to be instructed and encouraged to perform hand and finger exercises. Shoulder and elbow motion should also be encouraged and maintained during healing, especially in the elderly.

An innumerable and ever-increasing variety of implants for internal fixation of distal radius fractures continue to appear, largely as a result of the attempts by many different companies to corner a part of this market. This together with a steady stream of case series claiming excellent results in the treatment of distal radial fractures using one special plate or another may be tiresome. Nonetheless, we believe there have been some important developments. One was the inauguration of fixed-angle plate fixation and the other the development of the fragment specific fixation.

ARTHROSCOPIC MANAGEMENT OF DISTAL RADIUS FRACTURES

Mr. F. del Piñal

Private practice and Hospital Mutua Montañesa. Santander (Spain)

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

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

HOW TO EVALUATE AND TREAT CONCOMITANT CARPAL INJURIES WITH DISTAL RADIUS FRACTURES?

Mr Tommy Lindau MD, PhD

Consultant Hand Surgeon, Pulvertaft Hand Centre, Derby (UK)

Distal radial fractures are part of wrist injuries, where radial styloid fractures may be part of incomplete or complete greater arch perilunate dislocations. Consequently, the obvious distal radius fracture may be associated with any kind of incomplete or complete injuries along the greater arch. This was actually shown more than 10 years ago. Longitudinal studies have shown that peripheral triangular fibro-cartilage complex (TFCC) tears lead to DRU-joint instability, cartilage injuries lead to early osteoarthritis (OA) and scapho-lunate (SL) ligament tears Grade 3-4 lead to radiographic SL dissociation after a year.

The role of arthroscopy in distal radius fractures is today two-fold; firstly to give excellent accuracy in the intra-articular reduction as we know that intra-articular incongruity of more than 1mm is associated with the development of secondary OA. Secondly, the role of arthroscopy is to detect and treat associated ligament and cartilage injuries.

In addition to decision making in managing the actual distal radial fracture, the review of the radiographs should address direct and indirect signs of associated ligament injuries.

- Firstly, assess the degree of displacement of the ulnar styloid fracture, which may be indicative for an ulno-radial ligament detachment (peripheral TFCC injury).
- Secondly, check the three carpal arcs of Gilula, which are indicative for intercarpal ligament injury.
- Thirdly, assess palmar cortex for tear drop signs; i.e. signs of avulsed radio-carpal ligaments.
- Lastly, be aware that palmarly displaced fractures can cause radial artery injuries, flexor tendon ruptures or median nerve entrapments [carpal tunnel syndrome, CTS].

Obviously arthroscopy is the only way to completely rule out all associated injuries and this added adjunct should be considered in non-osteoporotic patients especially in high-energy trauma.

In the absence of arthroscopy, a fluoroscopic assessment including stress views, before reduction and fixation is mandatory to appropriately plan the surgical approach. A traction view is very useful to see whether the carpal arcs of Gilula are disrupted. Intercarpal ligament injuries can also be examined with an ulnar and radial deviation in order to see any gapping between the carpal bones. The DRU joint is difficult to assess before the distal radius fracture has been stabilised especially if there are dorsoulnar fragments involved. After reduction and fixation of the distal radius fracture a new assessment of the intercarpal ligaments and the DRU joint stability should be done.

If the distal fracture is treated well and associated injuries can either be ruled out or be found and treated, we can hope for better outcomes after the most frequent fracture in the body.

HOW TO DEAL WITH CONCOMITANT ULNAR SIDED WRIST INJURIES

Mr. Jan-Ragnar Haugstvedt MD, PhD

Senior Consultant, Section of Upper Extremity and Microsurgery
Orthopedic Department, Oslo University Hospital (Norway)

Patients that sustain from a distal radial fracture may end up suffering from ulnar sided wrist pain due to an initially overseen or improperly treated ulnar sided concomitant injury. While important stabilizing structures of the DRUJ are discussed in other talks in this session we will here discuss the importance of the ulnocarpal (UC) ligamentous complex and the bone (ulna) itself.

It has been shown that in a fall with the hand in a forced supinated and deviated position, a fracture with significant initial displacement will be associated with a soft tissue lesion around the ulnar head with a progressive tear of the ECU tendon sheath, the capsule, displacement of the TFCC and rupture of the deep TFCC fibers causing an instability of the ulnar structures. A volar dislocation is often present with the ulnar head presenting in the wound. In these cases a repair of the stabilizing structures should be performed from the volar side.

There have been many papers discussing what to do with an associated ulnar styloid fracture to a fracture of the distal radius. While some authors advise repair and stabilization of the fractured (or avulsed) ulna, others claim that this has no effect. In some studies with volar plating of the distal radius fracture, conclusions have been made that an accompanying ulnar styloid fracture has no adverse effect on the outcome. However these studies seem to have been performed without including a group where osteosynthesis of the fractured or avulsed ulna was performed. The effect of testing the stability of the radioulnar joint also seems to give different results from different studies.

A suggested conclusion will be to evaluate the injuries of the radial and the ulnar sides, then to perform a stable osteosynthesis of the radial fracture. If an open injury of the DRUJ exists the soft tissue injuries should be addressed. A test of the DRUJ stability should be performed while the patient is still in surgery; if the joint is stable, then accept; on the contrary an osteosynthesis of the fractured ulna and/or an immobilization in a cast or a transfixation should be considered.

ARTHROSCOPIC FINDINGS OF THE FOVEAL DETACHMENT OF THE TFCC IN DISTAL RADIUS FRACTURES

Presenter: Mr. Toshiyasu Nakamura (T. Nakamura, Y. Obara, M. Okazaki, K. Sato, Y. Toyama, H. Ikegami)
Department of Orthopaedic Surgery, School of Medicine, Keio University, Tokyo (Japan)

Background: Fracture of the ulnar styloid process and triangular fibrocartilage complex (TFCC) injury often accompanied by distal radius fracture. In the present study, an arthroscopy of the radiocarpal and distal radioulnar joints was performed to assess TFCC injury in every distal radius fracture. We evaluated incidence of ulnar styloid process fractures with TFCC injuries in this series. We also evaluated DRUJ arthroscopy findings on the detachment of the TFCC in distal radius fractures.

Method: We evaluated sequential 100 wrists of 98 patients who underwent reduction and internal fixation of distal radius fractures. Average age was 60.7 years (range, 15-83 years), right hand in 40 and left in 60. The fracture type was A2 in 26, A3 in 14, B3 in 6, C1 in 19, C2 in 30, and C3 in 5 (AO system). An ulnar distal fracture was seen in 63 wrists; tip in 13, middle in 19, base-horizontal in 21, base-oblique in 1. The foveal avulsion fracture was found in 5, neck fracture in 5 hands and head fracture in 3 wrists. The radiocarpal and DRUJ arthroscopy were performed in all cases. TFCC injuries, including tear/perforation of the disc proper, 1D type injury and detachment of the TFCC at the ulnar fovea were identified. Clinical outcome, fracture type of the radius and ulnar styloid, and type of TFCC injury were evaluated. The avulsion of the TFCC at the fovea and/or fracture of the ulnar styloid were repaired/refixed with positive findings on the DRUJ arthroscopy. The clinical results were assessed using Mayo modified wrist scores.

Results: 67 wrists indicated TFCC tears (67%). 1A tear was found in 39 wrists, while 24 indicated radial slit tear (1D type tear). Foveal detachment of the TFCC was seen on DRUJ arthroscopy in 36 wrists (36%) (average age: 68.0 years). Ulnar styloid fracture was observed in 54 wrists (54%) (average age: 66.0 years). The occurrence of foveal detachment of the TFCC was not statistically related to ulnar styloid fracture nor type of the fracture of the radius. The overall average Mayo modified wrist scores were 89.2 points.

Conclusion: Results of the present study suggest that TFCC injury in distal radial fractures can occur with or without all types of ulnar styloid fractures. associated with and can be unstable. Also, TFCC detachment injury was seen in all cases with ulnar fovea avulsion that can be easily ascertained without arthroscopy.

IS NEW CLASSIFICATION OF DISTAL RADIUS FRACTURE NECESSARY?

Mr. Makoto Tamai, MD, PhD

Department of Orthopaedic Surgery, Sapporo Medical University, Sapporo, Hokkaido (Japan)

An ideal classification of fractures would clearly identify the specific fracture characteristics and aid the decision making concerning choice of treatment method, and at the same time facilitate the prediction of treatment outcome. The information shared amongst medical practitioners must be valid in order to reliably and consistently read the imagery for diagnosis of fracture type. In addition there must exist a similarly high degree of consensus for diagnosis between different testers.

In the past, many classifications of distal radial fractures have been proposed. However with the introduction of a precise X-ray imagery including a high resolution 3D CT, diagnostic capabilities have increased and, as a result, "unclassified" or "marginal type" fractures that do not match with any representative fracture models in the classical classifications have been discovered. Also with the use of arthroscopy for intraarticular fractures and locking plate systems, surgical results have greatly improved in all types of distal radius fractures and the treatment outcome no longer correlates only with the fracture classification.

The author suggest a new classification system for distal radius fractures that can easily and clearly differentiates various types of distal radius fractures to correctly assess fracture severity and apply appropriate treatment methods. The radiographs of surgically intervened distal radius fractures were examined and the following radiographic findings (factors) that were considered to affect the surgical decision-making were

extracted: 1) type of deformity ("T" factor); 2) presence and severity of intraarticular fracture ("A" factor); 3) presence and location of metaphyseal comminution ("M" factor); 4) presence and severity of fracture involving diaphyses ("D" factor); and 5) presence and severity of radial translation ("R" factor). In addition to these five factors, the 6) type of associated ulnar fracture ("U" factor) was included for its importance in determining the severity of the injury and in deciding the method of treatment. These factors were categorized into four types or four grades, respectively, and used to assemble a modular style classification system. In order to describe a distal radius fracture, a type or a grade in each factor is identified on the radiographs and listed in T, A, M, D, R order. In addition, adding the U element could be used to classify distal radio-ulnar fractures in the "TAMDR+U" system.

The TAMDR+U classification method easily diagnoses fracture types and is an excellent tool for providing detailed information about the fracture to third parties. This classification would be helpful in understanding varieties of distal radius fractures and choice of treatment plan for each fracture including a surgical indication, a method of reduction, a type of fixation, and a choice of implant. For research, the control of detailed information concerning fractures and assigning point scores for the various factors will result in a scoring system that evaluates the severity of fractures. To advance its clinical applications, the repeatability and the reliability of this fracture classification should be addressed.