



**E-Poster**

Arthritis and Arthroplasty

- EPS-001 Geometric Accuracy of Elbow Flexion-extension (F-E) Axis based on Approximation to the Epicondylar Axis**  
**Zehao TAN<sup>1</sup>, YeongHuei NG<sup>2</sup>, Andy YEW<sup>2</sup>, Chueh Loo POH<sup>3</sup>, Joyce KOH<sup>2</sup>, Bernard MORREY<sup>4</sup> and Howe Tet SEN<sup>2</sup>**  
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- EPS-002 Total Elbow Arthroplasty for Early Loss of Fixation after Distal Humerus Fractures**  
**Bernard F MORREY<sup>1</sup>, Matthew KERGOSIEN<sup>2</sup>, Mark MORREY<sup>1</sup> and Joaquin SANCHEZ-SOTELO<sup>1</sup>**  
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- EPS-003 Comparison between Open and Arthroscopic Debridement in the Treatment of Advanced Primary Osteoarthritis of the Elbow**  
**Min Jong PARK<sup>1</sup>, Si Hoon YOO<sup>1</sup>, Midum JEGAL<sup>2</sup> and Sung Jong WOO<sup>3</sup>**  
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- EPS-004 Arthroscopic Debridement for Primary Osteoarthritis of the Elbow**  
**Takashi KASHIWA<sup>1,2</sup>, Kosuke IBA<sup>2</sup>, Koichi SASAKI<sup>2</sup>, Gosuke OOKI<sup>2</sup>, Kazunori ONDA<sup>2</sup>, Toshihiko YAMASHITA<sup>2</sup> and Takuro WADA<sup>3</sup>**  
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- EPS-005 Total Elbow Arthroplasty in Bleeding Disorders: an Additional Series of 8 Cases**  
**Robert DACHS<sup>1</sup>, Anne VOCHTELOO<sup>2</sup>, Stephen ROCHE<sup>1</sup> and Basil VRETTOS<sup>1</sup>**  
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- EPS-006 Humeral Bone Loss after Noncemented Humeral Head Replacement**  
**Kazuya INOUE<sup>1</sup>, Naoki SUENAGA<sup>2</sup>, Naomi OIZUMI<sup>2</sup>, Goro SAKURAI<sup>3</sup>, Yoshihiro SAKAMOTO<sup>1</sup>, Takuya EGAWA<sup>1</sup> and Yasuhito TANAKA<sup>1</sup>**  
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- EPS-007 Conversion of Total Shoulder Arthroplasty to Reverse Arthroplasty - the Benefits of Modularity**  
**Jerome Alon GOLDBERG and Nicholas Antonio FERRAN**  
 Department of Orthopaedic Surgery, Orthosports, Prince of Wales Private Hospital, Australia
- EPS-008 Two Years Results of All Arthroscopic Resurfacing of the Glenohumeral Joint with Fresh Osteochondral Allograft: A Prospective Study**  
**Yousef SHISHANI<sup>1</sup>, Jonathan STREIT<sup>2</sup>, Janice FLOCKEN<sup>1</sup>, Ryan CARR<sup>1</sup> and Reuben GOBEZIE<sup>1</sup>**  
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- EPS-009 Clinical and Radiographic Outcomes after Total Shoulder Arthroplasty with a Press-fit Short-Stem**  
**Benjamin W SZERLIP<sup>1</sup>, Brent J MORRIS<sup>2</sup>, Mitzi S LAUGHLIN<sup>3</sup> and Bradley T EDWARDS<sup>1</sup>**  
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- EPS-010 Does Prior Shoulder Surgery Negatively Impact Shoulder Arthroplasty Outcomes?**  
**Rachel M FRANK, Saleh AIYASH, Noam KUPFER, Simon LEE, Brian J COLE, Nikhil N VERMA, Gregory P NICHOLSON and Anthony A ROMEO**  
 Department of Orthopaedic Surgery, Rush University Medical Center, USA
- EPS-011 Measurements for the Humeral Retroversion using 2D CT Scan: Which is the Most Reliable One?**  
**Woo KIM<sup>1</sup>, Joo Han OH<sup>2</sup>, Byung Wook SONG<sup>1</sup> and Tae-Yon RHIE<sup>1</sup>**  
<sup>1</sup>Department of Orthopaedic Surgery, Nalgae Hospital, Republic of Korea, <sup>2</sup>Department of Orthopaedic Surgery, Seoul National University Bundang Hospital, Republic of Korea
- EPS-012 Reverse Total Shoulder Arthroplasty in Acromion Stress Fracture with Rotator Cuff Arthropathy : Two Cases Report**  
**Woo KIM, Byung Wook SONG and Tae-Yon RHIE**  
 Department of Orthopaedic, Nalgae Hospital, Republic of Korea
- EPS-013 Liposomal Bupivacaine vs. Interscalene Nerve Block for Pain Control after Shoulder Arthroplasty: A Retrospective Cohort Analysis**  
**Uma SRIKUMARAN<sup>1</sup>, Catherine HANNAN<sup>1</sup>, Matthew ALBRECHT<sup>1</sup>, Edward MCFARLAND<sup>1</sup>, Bashir ZIKRIA<sup>1</sup> and Steve PETERSEN<sup>2</sup>**  
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- EPS-014 Pegged Glenoid Loosening in Total Shoulder Arthroplasty: The Effect of Change of Cement and Radial Mismatch**  
**Anita HASLER, Mazda FARSHAD, Tobias DIETRICH and Christian GERBER**  
 Department of Orthopaedic Surgery, Balgrist University Hospital, Switzerland
- EPS-015 Mid-term Outcome after Rotator Cuff Reconstruction with using Smaller Humeral Head Replacement in Patients with Cuff Tear Arthropathy**  
**Takashi TOMA<sup>1</sup>, Naoki SUENAGA<sup>2</sup>, Naomi OIZUMI<sup>2</sup>, Chika YOSHIKA<sup>3</sup> and Shintaro YAMANE<sup>3</sup>**  
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- EPS-016 Nerve Injury following Shoulder Joint Replacement**  
**Craig M BALL**  
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- EPS-017 Rotator Cuff Reconstruction by Partial Subscapularis Transfer and Humeral Head Replacement Using Smaller Head Prosthesis in Cuff Tear Arthropathy**  
**Shintaro YAMANE<sup>1</sup>, Naoki SUENAGA<sup>2</sup>, Chika YOSHIOKA<sup>1</sup> and Naomi OIZUMI<sup>2</sup>**  
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**EPS-018 Reverse Arthroplasty for Chronic Anterior Shoulder Subluxation following Arthroscopic Bankart Repair -a Case Report-**

Yusuke SUMI<sup>1</sup>, Tomoyuki MOCHIZUKI<sup>2</sup>, Akimoto NIMURA<sup>3</sup>, Takashi MIYAMOTO<sup>1</sup>, Hideya YOSHIMURA<sup>4</sup>  
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**EPS-019 Production of a Model and a Custom-Made Surgical Guide with a 3D Printer in Total and Reverse Total Shoulder Arthroplasty Using Free Software**

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**EPS-020 Clinical and Functional Outcomes of Reverse Total Shoulder Arthroplasty**

Hyunseong KANG, Sungwook CHOI, Chen Tai TEONG and Jong-Hwan BAE  
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**EPS-021 Arthroscopic Debridement for a Septic Arthritis of the Shoulder: A Character of the Recurrent Case after Surgery**

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**EPS-022 Preventing Brachial Plexus Injury during Shoulder Arthroplasty: A Real Time Cadaveric Study**

Andrew KAM, Patrick H LAM, Pieter S W A HAEN, Martin TAN, Aminudin Bin SHAMSUDIN and George A C MURRELL  
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**EPS-023 Glenoid Morphology in Cuff Tear Arthroplasty**

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**EPS-024 Prognostic Factors Affecting Clinical Outcomes after Reverse Shoulder Arthroplasty in Asian Population**

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**EPS-025 Reverse Total Shoulder Arthroplasty (Rtsa) in Patients under 70 Years: Mid-Term Results**

Ofer LEVY, Lora YOUNG, Georgios AREALIS, Oren TSVIELI, Riten PRADHAN, Ruben ABRAHAM, Jaikumar RELWANI, Ali NARVANI, Giuseppe SFORZA and Juan BRUGUERA  
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**EPS-026 Outcomes of Glenohumeral Resurfacing in High Level Weightlifters: A Case Series**

Jason COLLINS, Luis VARGAS and John URIBE  
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**EPS-027 Does Excessive Lengthening of Deltoid Muscle Affect Pain of Upper Arm after Reverse Shoulder Arthroplasty?**

Hirromichi OMAE  
 Department of Orthopaedic Surgery, Matsuyama Red Cross Hospital, Japan

**EPS-028 Does Outpatient Surgery Reduce Short-term Complications Following Total Shoulder Arthroplasty?**

Kyle R DUCHMAN, Chris A ANTHONY, Robert W WESTERMANN, Yubo GAO, Andrew J PUGELY and Carolyn M HETTRICH  
 Department of Orthopaedic Surgery, University of Iowa, USA

**EPS-033 Computed Tomography Imaging Techniques for Postoperative Assessment of Glenoid Component Positions following Total Shoulder Arthroplasty**

Bong-Jae JUN<sup>1</sup>, Eric T. RICCHETTI<sup>2</sup>, Thomas E. PATTERSON<sup>2</sup> and Joseph P. IANNOTTI<sup>2</sup>  
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**EPS-034 19 Years Old Malunited Fracture Proximal Humerus with Post Traumatic Shoulder Arthritis - Is Reverse Shoulder Arthroplasty Best Available Option?**

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 Department of ORTHOPAEDIC SURGERY, MEDWORLD HOSPITAL, India

**EPS-035 Early Results Following Glenoid Bone Grafting in Total Shoulder Arthroplasty**

Daniel MORRELL, Michal KOZIARA and David S THYAGARAJAN  
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**EPS-036 Long-Term Outcomes of Cemented versus Cementless Humeral Stems in Shoulder Arthroplasty**

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**EPS-037 Arthroscopic Assisted Shoulder Interposition Arthroplasty**

Çağdaş Hakkı BASAT<sup>1</sup>, Cihan KIRÇIL<sup>2</sup>, Hakan UÇAR<sup>1</sup> and Mehmet DEMIRTAŞ<sup>3</sup>  
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**EPS-040 Outcomes after Total Shoulder Arthroplasty: Comparison between Different Pathogeneses**

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 Orthopedic Department, E-DA Hospital/I-Shou University, Taiwan

**Basic Researches**

**EPS-041 Stem Length and Neck Resection on Fixation Strength of Press Fit Radial Head Prosthesis: An In-Vitro Model**

Jun-Gyu MOON<sup>1,2</sup>, Dave R. SHUKLA<sup>1</sup>, James S. FITZSIMMONS<sup>1</sup>, Kai-Nan AN<sup>1</sup> and Shawn W. O' DRISCOLL<sup>1</sup>  
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**EPS-042 Contribution of Cartilage to Size and Shape of Distal Humerus: MRI Analysis of 78 Elbows.**

Giuseppe GIANNICOLA, Paolo SPINELLO, Marco SCACCHI and David POLIMANTI  
 Department of Anatomical, Histological, Forensic Medicine and Orthopedics Sciences, "Sapienza" University of Rome - Policlinico Umberto I, Italy

**EPS-043 Kinematic Analysis of Medial Ulnar Collateral Ligament using 3D Simulation in Vivo with Fiber Resolution**

Rizki Fajar ZULKARNAIN, Hanpyo HONG, Arnold ADIKRISHNA, Bin ZHU, Hong Jun JUNG and In-Ho JEON  
 Department of Orthopaedic Surgery, University of Ulsan College of Medicine, Asan Medical Center, Republic of Korea

**EPS-044 Mechanoreceptor Distribution in the Human Elbow Ligaments**

Hyun-Joo LEE<sup>1</sup>, In-Ho JEON<sup>2</sup>, Ga-Yeong KIM<sup>2</sup>, Arnold ADIKRISHNA<sup>2</sup>, Maria Florencia DESLIVIA<sup>3</sup> and Bin ZHU<sup>2</sup>  
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**EPS-045 Lacertus Fibrosis versus Achilles Allograft Reconstruction for Chronic Distal Biceps Tears: A Biomechanical Study**

Anand MURTHI, Miguel RAMIREZ and Brent PARKS  
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**EPS-046 Radiocapitellar Contact Biomechanics after Interosseous Membrane(IOM) Reconstruction under Differing Tensions.**

Youngbok KIM<sup>1,2</sup>, Daniel R. BACHMAN<sup>1</sup>, Shawn W. O'DRISCOLL<sup>1</sup>, James S. FITZSIMMONS<sup>1</sup>, Enrico BELLATO<sup>1</sup> and Kai-Nan AN<sup>1</sup>  
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**EPS-047 Effectiveness of the Saline Load Test in Evaluation of Traumatic Glenohumeral Arthroplasties**

Adam SHANER<sup>1</sup>, Lynn JONES<sup>1</sup>, Stephen BELKOFF<sup>1</sup>, Alan YAN<sup>2</sup>, Uma SRIKUMARAN<sup>1</sup> and Edward MCFARLAND<sup>1</sup>  
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**EPS-048 Three-dimensional Arthropometry of the Glenohumeral Joint in a Normal Asian Population**

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**EPS-049 Electromyographic Activities of Rotator Cuff Muscles during Walking, Eating and Bathing**

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**EPS-050 Structural Analysis of Bicipital Groove in Koreans**

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**EPS-051 Clinical Correlation of Metabolic Parameters on F-18 FDG PET/CT in Primary Frozen Shoulder**

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**EPS-052 Biomechanical Performance of Double Knotless Screw Fixation: a Novel Technique for Suprapectoral Biceps Tenodesis**

Wei-Ren SU<sup>1,4</sup>, Chih-Hsun CHANG<sup>2</sup>, Florence Y. LING<sup>3</sup>, Chih-Kai HONG<sup>2</sup>, I-Ming JOU<sup>1,4</sup>, Ping-Hui WANG<sup>5</sup> and Hung-Nan WANG<sup>6</sup>  
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**EPS-053 Effect of Hypercholesterolemia on Fatty Infiltration and Healing in a Rabbit Model of a Chronic Rotator Cuff Tear**

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**EPS-054 Characteristics of the Gene Expression of the Torn Rotator Cuff Tendon Tissue in Patients with Diabetes**

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**EPS-055 The Incidence of Occult Fracture of the Surgical Neck of the Humerus Associated with Isolated Greater Tuberosity Fracture**

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**EPS-056 What is the Rotator Cable of the Shoulder? - An Anatomical Study.**

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**EPS-058 Compensatory Hypertrophy of the Teres Minor Muscle in a Rat Model of Large Rotator Cuff Tear**

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**EPS-059 Effective Healing of Chronic Rotator Cuff Injury Using Recombinant Bone Morphogenetic Protein-2 Coated Dermal Patch in Vivo**

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**EPS-060 Are the Symptoms of Calcific Tendonitis due to Neoinnervation and/or Neovascularisation?**

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**EPS-061 Gap Formation in Double-row Rotator Cuff Repairs: a Biomechanical Evaluation**

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**EPS-062 Rotator Cuff Repair using Surederm Dermal Allograft in a Large or Massive Rotator Cuff. Biomechanical and Histologic Analysis of Surederm Repair**

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**EPS-063 Bony Morphology of the Shoulder Joint - A Cadaveric Study**

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**EPS-064 The Effect of Low-Intensity Pulsed Ultrasound for Human Rotator Cuff Derived Cells**

**Issei NAGURA**<sup>1,2</sup>, Takeshi KOKUBU<sup>2</sup>, Takahiro NIIKURA<sup>2</sup>, Yutaka MIFUNE<sup>2</sup>, Atsuyuki INUI<sup>2</sup>, Ryosuke SAKATA<sup>2</sup> and Masahiro KUROSAKA<sup>2</sup>  
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**EPS-065 Platelet Concentrate Preparations Differ Fundamentally in the Amounts and Dynamics of Growth Factor Release.**

**Kyu Cheol NOH**<sup>1</sup>, Xiaoning LIU<sup>2</sup> and Kyung Ok KIM<sup>3</sup>  
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**EPS-066 Effect of High Glucose Condition on Rat Tenocytes**

Yasuhiro UEDA, Atsuyuki INUI, Takeshi KOKUBU, Yutaka MIFUNE, Ryosuke SAKATA, Yoshifumi HARADA, Fumiaki TAKASE, Takeshi KATAOKA and Masahiro KUROSAKA  
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**EPS-067 A Novel Shoulder Scoring System: Based on Patients and Physicians - Fudan University Shoulder Score (FUSS)**

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**EPS-068 PRP for Tendons: A Pilot Study of the New Tianji's Horse(Dog) Racing Story**

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**EPS-069 Cyclic Load Testing of Allogenic Cortical Bone Anchor: A Cadaveric Study**

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**EPS-070 Biomechanical Evaluation of Two Arthroscopic Techniques for Biceps Tenodesis: Triple Loop Suture Versus Simple Suture**

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**Fracture**

**EPS-071 Is Cross-Screws Superior to Plates for Displaced Radial Neck Fractures?**

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**EPS-072 Anatomical Considerations of the Posterior Interosseous Nerve in Lateral Surgical Approaches to the Radial Head – A Cadaveric Study**

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**EPS-073 Isolated Displaced Trochlear Fracture Treated by Open Reduction and Internal Fixation Using Medial Approach: A Case Report**

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**EPS-074 Crisscross-Type Screw Fixation for Transcondylar Fractures of Distal Humerus in Elderly Patients**

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**EPS-075 Unusual Presentation of a Type 1 Monteggia Equivalent Lesion**

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**EPS-076 Radial Head Fracture: Resection Vs. Metal Spacer in Mason III Y IV**

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**EPS-077 Tension Band Fixation for Comminuted Proximal Ulnar Fractures Instead of Locking Plate Fixation; A Report of 4 Cases.**

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**EPS-078 Comparative Study of Arthroscopic Treatment of Radial Head Fracture with Elbow Fracture-Dislocation: Radial Head Partial Excision vs. Without Excision**

Jeong Woo KIM<sup>1</sup>, Jong Myung LEE<sup>2</sup>, Jong Yun KIM<sup>2</sup>, Kyu Hwan BAE<sup>1</sup>, Sung Hyun LEE<sup>1</sup>, Se Jin KIM<sup>1</sup> and Min Su JOO<sup>1</sup>  
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**EPS-079 Total Elbow Arthroplasty for Complex Elbow Fracture in the Elderly Patient with Elbow Joint Degenerative Osteoarthritis**

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**EPS-080 The Surgical Outcomes of the Coronoid Process Fractures of the Ulna Using the Novel 'Hooked Kirshner Wire Technique'**

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**EPS-081 Treatment of Mason Type 3 or 4 Radial Head Fracture: OR-IF Vs. Arthroplasty**

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**EPS-082 Comparison of Locking Plate versus Antegrade Intramedullary Nail for Fixation of Proximal Humeral Fractures: Retrospective Study of 163 Cases**

Isuya GOYA<sup>1</sup>, Hiroshi Yamaguchi<sup>2,3</sup>, Takashi Toma<sup>3</sup>, Naoki Suenaga<sup>4</sup> and Fuminori Kanaya<sup>3</sup>  
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**EPS-083 Anterior Chest Numbness after Open Reduction and Internal Fixation of Midshaft Clavicle Fracture of Midshaft Clavicle Fracture**

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**EPS-084 Comparative Analysis of the Results of Minimally Invasive Anterior Plating and Open Reduction and Internal Fixation: Humerus Shaft Fracture**

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**EPS-085 Mini-Open Reduction and Percutaneous Screw Fixation for the Management of Proximal Humeral Fracture Dislocation: A New Technique**

**Nick JOHNSON** and Radhakant A PANDEY  
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**EPS-086 Clinical Results of All-in-One Nail System for Valgus Impacted Fracture of the Humerus**

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**EPS-087 Results of Open Reduction and Internal Fixation of Severe Fractures of the Proximal Humerus in Elderly Patients**

Alberto Naoki MIYAZAKI, Sergio Luis CHECCHIA, Marcelo FREGONEZE, Pedro Doneux SANTOS, Luciana Andrade SILVA and Caio Santos CHECCHIA  
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**EPS-088 Osteosynthesis of Proximal Humerus Fractures with Metaphyseal Comminution Using Dual Locking Plate**

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**EPS-089 Treatment for Distal Clavicle Fractures with Associated Coracoclavicular Ligament Injury by Arthroscopic Ligament Reconstruction Using**

**Takashi HAYAKAWA**  
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**EPS-090 Large Hill-Sachs Sheering Fracture - A Case Report of an Unreported Proximal Humerus Fracture-Dislocation**

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**EPS-091 Use of Teriparatide after Surgery of Proximal Humerus Fracture**

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**EPS-092 Minimally Invasive Plate Osteosynthesis Using a Helical Plate for Metadiaphyseal Complex Fractures of the Proximal Humerus**

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**EPS-093 Clavicle Pseudoarthrosis with Large Bone Defect Treated by Masquelet Procedure - A Case Report -**

Yuhei TAKADA<sup>1,2</sup>, **Satoshi OKI**<sup>1</sup>, Shohei IWABU<sup>3</sup>, Soichiro ONO<sup>1</sup> and Hirobumi YOSHIDA<sup>1</sup>  
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**EPS-094 The Comparison of MIPO Vs. Open Plate Fixation for the Treatment of Clavicle Midshaft Fracture**

Suk Woong KANG, Bu Hwan KIM, Moo Ho SONG, Seong Jun AHN, Seong Ho YOO and Young Jun KIM  
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**EPS-095 Analysis of the Injury Pattern and Evaluation of Surgical Treatment Outcome of the Superior Shoulder Suspensory Complex**

Seong Cheol MOON, **In Hyeok RHYOU**, Kyung Chul KIM, Ji-Ho LEE, Ki-Baek AHN, Kyung Sup LIM and Hyung Jin KIM  
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**EPS-096 Acromion after Hook Plate Fixation for Distal Clavicle Injury : Case Report**

Jong Pil KIM, Young Sung KIM, **Ho Min LEE** and In Hwa BACK  
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**EPS-097 Risk of Revision and Reasons for Revision after Shoulder Replacement for Acute Fracture of the Proximal Humerus: a Scandinavian Registry-Based Study of 6,744 Cases**

**Stig BRORSON**<sup>1</sup>, Björn SALOMONSSON<sup>2</sup> and Jeppe Vejlgard RASMUSSEN<sup>1</sup>  
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**EPS-098 Fixation of Comminuted Proximal Humeral Fractures Using Plate and Endosteal Strut Allograft**

Jinyoung JEONG and **Kyu Jo LEE**  
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**EPS-099 Minimally Invasive Plate Osteosynthesis Using Lag Screw Technique in the Management of the Proximal Humerus Fractures**

**Suk-Hwan JANG**, Jin-Woo LIM and **Min-Soo KWON**  
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**EPS-100 Arthroscopic Percutaneous Inverted Mattress Suture Fixation of Isolated Greater Tuberosity Fracture of Humerus**

**Suk-Hwan JANG**, **Ho-Su JANG** and Jung-Ho PARK  
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**EPS-101 More than 25% of Comminuted Glenoid Fracture with Arthroscopic Management**

Hyoung-Sik KIM, **Jin-Cheol OH**, **Ho-Jung KANG** and Yong-Min CHUN  
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**EPS-102 The Treatment of Unstable Proximal Humerus Fracture Using Locking Compression Plate**

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**EPS-103 National Trends in Surgical Treatment Patterns of Proximal Humerus Fractures from 2002-2012**

**Daniel J LOMBARDO**<sup>1,2</sup>, Martin Hs WEISMAN<sup>1,2</sup>, Daniel M BRIGGS<sup>1,2</sup>, Adam MILAM<sup>1</sup>, Kyle RAMTHUN<sup>1</sup> and Vani J SABESAN<sup>1,2</sup>  
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**EPS-104 Functional Evaluation of Precontoured Locking Plate Treatment in Mid-Shaft Clavicle Fracture**

Juan Martin PATINO, Sandra Denise HOCHBAUM, Fernando Zicovich WILSON and Egar Agustín KERBER  
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**EPS-105 Surgical Treatment of Displaced Midshaft Clavicular Fractures with Precontoured Plates**

Luciano Andres ROSSI, Maximiliano RANALLETTA, Santiago BONGIOVANNI, Maignon GASTON,  
Ignacio TANOIRA, Adrian SIRIO and Nicolas PIUZZI  
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**Instability****EPS-106 Elbow Dislocation Associated with O'Driscoll Type 2 Fracture -Comprehensive Study for Morphological Characteristics and Soft Tissue Injury Patterns-**

In Hyeok RHYOU, Ji-Ho LEE, Kyung Chul KIM, Ki-Baek AHN, Kyung Sup LIM, Seong Cheol MOON and Hyung Jin KIM  
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**EPS-107 Short-Term Outcome of One-Stage Management of Bony and Ligamentous Components Using Anteromedial with Kocher Approach to Treat Elbow Dislocation with Fracture of Ulna Coronoid Process.**

Guoyong YANG and Ming XIANG  
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**EPS-108 Surgical Management of Complex Terrible Triad Injuries of the Elbow**

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**EPS-109 Traumatic Valgus Elbow Injury with Radial Head Fracture**

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**EPS-110 Glenoid Rim Fracture Through Anchor Points after Arthroscopic Bankart Repair for Shoulder Instability**

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**EPS-111 Arthroscopic Treatment of Recurrent Anterior Dislocation with Glenoid Defect**

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**EPS-112 Bone Fragment Union after Arthroscopic Bony Bankart Repair for Traumatic Anterior Shoulder Instability with a Glenoid Defect: The Timing and Extent of Bone Union and Its Influence on Postoperative Recurrence**

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**EPS-113 Arthroscopic Reconstruction of Acute Large Solitary and Multifragmented Anterior Glenoid Fractures**

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**EPS-114 Infrapinatus Strength Assessment and Ultrasound Evaluation of Arthroscopic Hill-Sachs Remplissage**

Giovanni MEROLLA, Paolo PALADINI, Francesco FAUCI and Giuseppe PORCELLINI  
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**EPS-115 Long-Term Restoration of Anterior Shoulder Stability: Arthroscopic Bankart Repair versus Open Latarjet**

Stefan Michael ZIMMERMANN, Max Joseph SCHEYERER, Mazda FARSHAD, Sabrina CATANZARO, Stefan RAHM and Christian GERBER  
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**EPS-116 Does a Hill-Sachs Lesion Occur at the Time of Dislocation?**

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**EPS-117 Recurrence of First Time Anterior Shoulder Dislocation in Elderly Patients**

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**EPS-118 Does the Intra-Articular Lidocaine Injection Have the Benefit for the Reduction of Acute Anterior Shoulder Dislocation?: A Prospective Randomized Trial**

Joon Yub KIM<sup>1</sup>, Seok Won CHUNG<sup>2</sup> and Myung Gon JUNG<sup>1</sup>  
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**EPS-119 Arthroscopic Bankart Repair for Primary Shoulder Dislocation**

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**EPS-120 Postoperative Loss of External Rotation after Arthroscopic Bankart Repair is Related to the Age at the Time of Surgery**

Tadahiro SAKAI, Hideki HIRAIWA, Takashi HAMADA, Tomoyuki ODA, Satoshi YAMASHITA and Naoki ISHIGURO  
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**EPS-121 The Clinical Outcomes of Anterior Instability with Bankart Lesion Caused by Recurrent Shoulder Subluxation in Patients Younger than 30 Years Old: A Comparative Study with Recurrent Shoulder Dislocation**

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**EPS-122 The Analysis of Glenoid Bone Defect Appropriate for Better Matching of the Coracoid Graft in Latarjet Procedure**

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**EPS-123 CT Analysis of Recurrent Anterior Shoulder Instability in Elderly People**

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**EPS-124 The Arthroscopic Remplissage Procedure for Anterior Shoulder Instability with High Risk of Recurrence**

Morihito TOKAI, Hiroyuki SUGAYA, Norimasa TAKAHASHI, Nobuaki KAWAI, Kazutomo ONISHI, Yusuke UEDA and Shota HOSHIKA  
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**EPS-125 Does Size Matter? - Preoperative Evaluation of Spinoglenoid Ganglion Cyst with MRI, EMG and Isokinetic Muscle Test**

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**EPS-126 Surgical Management of Anterior Shoulder Instability: Clinical Features and Functional Outcomes**

Tamara SOH, Wai Keong MAK, Keng Thiam LEE, Mui-Hong LIM and Ramesh SUBRAMANIAM  
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**EPS-127 Clinical Results of the Arthroscopic "Multiple Pulled Suture" Technique for Large or Comminuted Bony Bankart Lesion**

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**EPS-128 Axillary Nerve Palsy after Arthroscopic Repair for Capsular Lesions in Patients with Shoulder Instability: A series of 3 Cases**

Hiroshige HAMADA, Hiroyuki SUGAYA, Norimasa TAKAHASHI, Morihito TOKAI, Nobuaki KAWAI, Kazutomo ONISHI, Yuusuke UEDA, Syouta HOSHIKA, Yuuki IJIMA and Kazuhiro MAEDA  
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**EPS-129 Arthroscopic Latarjet for Bipolar Glenohumeral Bone Loss: Learning Curve and Early Results**

Kerem BILSEL, Fatih YILDIZ, Mehmet ELMADAĞ, Gökçer UZER, Jotyari ALI and Ibrahim TUNCAI  
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**EPS-130 Risk Factors for Recurrence of Anterior Traumatic Shoulder Instability after Arthroscopic Repair**

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**EPS-131 Comparison of Reconstruction Methods for Shoulder Instability with Glenoid Bone Loss- Latarjet vs. Bristow**

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**EPS-133 Clinical Characteristics of Unstable Painful Shoulder (UPS)**

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**EPS-134 Arthroscopic Management of Humeral Avulsions of the Glenohumeral Ligament**

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**EPS-135 Horrible Tetrad: Anterior Shoulder Dislocation Associated with Rotator Cuff Tear, Injury to the Brachial Plexus and Articular Biceps Dislocation.**

Victor Manuel NAULA<sup>1</sup>, Angel Miguel AUAD<sup>1</sup>, Chlala Musa BACHIR<sup>1</sup>, Bigoni MARCO<sup>2</sup> and Felipe JIMENEZ<sup>1</sup>  
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**EPS-136 Arthroscopic Revision Bankart Repair Using DAFF Technique for Failed Bankart Repair**

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**EPS-137 Arthroscopic Reconstruction of Posterior Glenoid Defect with Iliac Bone Graft (Case Report with Decubitus Lateral Position)**

Luciano ROSSI, Maximiliano RANALLETTA, Gaston MAIGNON, Santiago BONGIOVANNI, Ignacio TANOIRA, Hugo BARROS and Andres DELASPRIELLA  
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**EPS-138 Isokinetic Testing of Shoulder Rotator Muscles after Arthroscopic Treatment of Anterior Shoulder Instability**

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**EPS-139 An Early CT Measurement Result of Arthroscopic Latarjet Procedure Which Used Suture Anchor to Fix Bone Block**

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**Miscellaneous**

**EPS-140 Indomethacin Use in the Prevention of Postoperative Radioulnar Synostosis after Distal Biceps Repair**

Callista COSTOPOULOS, Joseph ABBOUD, Matthew RAMSEY, Charles GETZ, Daniel SHOLDER, John TARAS, Daniel HUTTMAN and Mark LAZARUS  
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**EPS-141 Case Report - Unusual Presentation of a Type 1 Monteggia Equivalent Lesion.**

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**EPS-142 Arthroscopic Excision of Intra-Articular Osteochondroma of the Elbow: A Case Report**

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**EPS-143 Reliability of the VDO Clip-Based Goniometry Method for Measuring Range of Motion of the Elbow**

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**EPS-144 Frozen Shoulder: Is Optimal Timing for Manipulation of Frozen Shoulder between 6 and 9 Months?**

Heidi VASTAMÄKI, Lassi VARJONEN and Martti VASTAMÄKI  
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**EPS-145 Primary Synovial Chondromatosis of the Shoulder with Concomitant Intra - and Extra-Articular Involvement: More than a Simple Removal of Loose Bodies**

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**EPS-146 Navigation Assisted Suture Anchor Insertion for Arthroscopic Subscapularis Repair.**

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**EPS-147 Arthroscopic Knotless Supraperacrotal Tenodesis of the Long Head of Biceps - Clinical and Structural Results -**

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**EPS-148 The Effect of Radiographic Beam Angle on Acromiohumeral Interval: 3D-CT Analytic Study**

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**EPS-149 Analysis of the Shoulder and Elbow Section of the Korean Orthopedic In-Training Examination**

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**EPS-150 Shoulder Manipulation under Ultrasound Guided C5, C6 Root Block for Frozen Shoulder**

**Makoto MITANI**, Isao FUJIBAYASHI, Hiroyuki MORI, Kohei YAMAURA, Yuji HIROSHIMA and Takuma OZAKI  
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**EPS-151 Clinical Application of a New Patient Positioning and New Portal for Scapulothoracic Arthroscopy**

**Benno EJNISMAN**, Carlos Vicente ANDREOLI, Alberto POCHINI, Moises COHEN and Flavio FALOPPA  
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**EPS-152 Arthroscopic Debridement of the Shoulder for the Treatment of Dialysis -Related Amyloidosis**

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**EPS-153 Clinical Efficacy of Hydrodilatation with Manipulation Under an Interscalene Block in Treatment of Frozen Shoulder: A Prospective Randomized Controlled Study**

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**EPS-154 Surgical Approach for the Subscapular Abscess - Two Case Reports**

Hideaki ASAI<sup>1</sup>, Hiroki YOSHITOMI<sup>2</sup>, Masahiko MORISHIGE<sup>3</sup>, Toshinobu OMIYA<sup>4</sup>, Yuichi NAGASE<sup>5</sup> and Kazuya TAMAI<sup>6</sup>  
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**EPS-155 The Fate of Calcific Tendinitis**

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**EPS-156 Extensive Advanced Pigmented Villonodular Synovitis of the Shoulder: Arthroscopic Treatment and Long Term Outcome ~ A Case Report.**

**Pawin RATTANASUMRIT**<sup>1</sup>, Ryo NAKAJIMA<sup>2</sup>, Hiroyuki SUGAYA<sup>2</sup> and Norimasa TAKAHASHI<sup>2</sup>  
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**EPS-157 Atypically Large Calcific Tendinitis of the Shoulder**

Jeong Hoon CHAE, **Kyu Pill MOON**, Kyung Taek KIM and Youn Soo HWANG  
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**EPS-158 Analysis of Spur at the Bicipital Groove Using 3D-CT**

**Hyun Seok SONG**, Syung Kyun CHOI, Sang Won PARK and Chu Hwan BYUN  
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**EPS-159 The Value of Arthroscopic Shoulder Release on the Early Stages of Frozen Shoulder**

Jinzhong ZHAO, Xiaoqiao HUANGFU and Xingguang YANG  
Department of Sports Medicine, Shanghai Jiaotong University, Shanghai Sixth People's Hospital, China

**EPS-160 Paralabral Spinoglenoid Cysts with Suprascapular Nerve Palsy – A Comparison of Two Arthroscopic Approaches**

**Dinshaw PARDIWALA**, Yathiraj BR and Rohan VAKTA  
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**EPS-161 The Characteristics of Culture Negative Deep Infection Following Arthroscopic Shoulder Surgery**

**Myung Sun KIM**, Byoung Jin KIM, Jong Hwan SEOL and Jun Ik CHOI  
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**EPS-162 Pneumothorax and Subcutaneous Emphysema in Arthroscopic Rotator Cuff Repair**

Teruhiko NAKAGAWA and Tetsuya SATO  
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**EPS-163 Predictive Factors of the Long Head of Biceps Tendon Disorders – The Bicipital Groove Morphology and Subscapularis Tendon Tear -**

**Tadanao FUNAKOSHI**<sup>1</sup>, Atsushi URITA<sup>1</sup>, Toraji AMANO<sup>2</sup> and Norimasa IWASAKI<sup>1</sup>  
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**EPS-164 Manipulation under General Anesthesia for Frozen Shoulder**

**Toshitake AIZAWA** and Atsuko KANNO  
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**EPS-165 Reliability of Frozen Shoulder Classification System**

Nitesh GAHLOT and **Hyung Bin PARK**  
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**EPS-166 Arthroscopic ACJ Reconstruction of both CC & ACJ Ligaments**

**Kenneth CUTBUSH**  
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**EPS-167 Extra-Articular Endoscopic Excision of Ganglion Cyst on the Spinoglenoid Notch**

Ho-Jung KANG, **Won-Taek OH**, Ho-June CHOI, Hyoung-Sik KIM and Yong-Min CHUN  
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**EPS-168 The Comparison of Two Techniques for Arthroscopic Proximal Biceps Tenodesis for the Biceps Instability: Interference Screw versus Suture Anchor Fixation.**

**Gihyuk MOON** and Gilyeong AHN  
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**EPS-170 The Mechanical Properties & Indications for a Single Loop Anchor Device (SLAD) for Ligament Augmentation**

**W Angus WALLACE**<sup>1</sup>, Matt RAVENSCROFT<sup>2</sup>, Ben YOUNG<sup>3</sup>, Bahaa B SEEDHOM<sup>3</sup>, David J BEEVERS<sup>3</sup> and Robin CHIVERS<sup>3</sup>  
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**EPS-171 Comparison of Different European and North American Shoulder Scoring Systems**

**Nawaf ALFAHAD**<sup>1,2</sup>, John GEOGHEGAN<sup>1</sup>, Archan BHATTACHARAYA<sup>3</sup>, Krishna KUMAR<sup>1</sup> and W Angus WALLACE<sup>1,2,3</sup>  
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**EPS-173 The Comparison of Arthroscopic Treatment of Acute Tossy III Acromioclavicular Dislocation Using Single Set of Paired Endobutton vs. Double Sets of Paired Endobutton**

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**EPS-174 Arthroscopic Glenoid Bone Grafting for the Treatment of Recurrent Anterior Shoulder Dislocation**

**He YAOHUA**  
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**EPS-175 Arthroscopic Bankart Repair Combined with Remplissage Procedure to Treat Recurrent Shoulder Dislocation with Moderate Bone Defect**

**Ming XIANG**, Xiao-Chuan HU, Chen HANG, Guo-Yong YANG and Yi-Ping LI  
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**EPS-176 Short-Term Clinical Outcome of Treatment of Proximal Humeral Fractures with Multiloc Nail**

**Ming XIANG**, Chen HANG, Guo-Yong YANG, Xiao-Chuan HU, Deng MINGYUE, He JIA and Gong CHAOMIN  
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**EPS-177 Baker's Cyst-Like Mass on the Shoulder of a Patient with Osteodegenerative Arthritis: A Case Report**

**Paolo Alan Binlayo TABAR**  
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**EPS-178 Diagnostic Availability of Radial Scan View of Magnetic Resonance Arthrography for Upper Subscapularis Tendon Tears**

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**Rotator Cuff**

**EPS-179 Correlation of MRI with Prospective Arthroscopic Classification for Subscapularis Tendon Lesions**

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**EPS-180 How Long Should We Monitor High-Grade Partial Thickness Rotator Cuff Tears? - The Conversion Rate to Full Thickness Tear and Affecting Factors -**

**Jieun KWON**<sup>2</sup>, **Joo Han OH**<sup>1</sup>, Do Yeon KIM<sup>1</sup>, Je Kyun KIM<sup>1</sup>, Jeong Dong LEE<sup>1</sup> and YeongKyoon PARK<sup>1</sup>  
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**EPS-181 Do Different COX Inhibitors Impair Rotator Cuff Healing?**

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**EPS-182 Pectoralis Major Muscle Transfer for the Treatment of Irreparable Anterosuperior Rotator Cuff Tears**

**Hiroshi YAMAGUCHI**<sup>1,3,4</sup>, Naoki SUENAGA<sup>2</sup>, Naomi OIZUMI<sup>2</sup>, Isoya GOYA<sup>3</sup> and Fuminori KANAYA<sup>4</sup>  
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**EPS-183 Factors Associated with Different Degrees of Symptomatic Rotator Cuff Tear**

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**EPS-184 Comparison of the Epidemiology and Outcomes of Arthroscopic Rotator Cuff Repair for Anterosuperior and Posterosuperior Rotator Cuff Tears**

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**EPS-185 Time Course Study of Postoperative Re-Tear after Arthroscopic Rotator Cuff Repair**

**Isao FUJIBAYASHI**, Makoto MITANI, Takuma OZAKI, Hiroyuki MORI and Yuji HIROSHIMA  
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**EPS-186 MRI Quantification of Fatty Infiltration and Muscle Atrophy in Rotator Cuff Tears Using Image J**

**Nam-Su CHO**, Hee-Seok SHIM, Young-Seok KIM and Yong-Girl RHEE  
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**EPS-187 Arthroscopic Repair for Large U- or L-Shaped Rotator Cuff Tears**

**Sung-Weon JUNG**, Ji-Heon LEE, Hae-Seong LIM and Byung-Ryul KANG  
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**EPS-188 Effect of Preoperative Pseudoparalysis on Clinical and Anatomical Outcomes after Rotator Cuff Surgery**

**Shoji FUKUTA**, Takahiko TSUTSUI and Koichi SAIRYO  
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**EPS-189 Development of an Autologous Carrier for Mesenchymal Stem Cells in Rotator Cuff Repair**  
**Andreas VOSS**<sup>1,2</sup>, Mary Beth MCCARTHY<sup>2</sup>, Jessica DIVENERE<sup>2</sup>, Mark P COTE<sup>2</sup>, Knut BEITZEL<sup>1</sup>, Andreas B IMHOFF<sup>1</sup> and Augustus D MAZZOCCA<sup>2</sup>

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**EPS-190 Which Rotator Cuff Tears are Liable to Retear after Arthroscopic Repair?**

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**EPS-191 The Effect of Selective COX-2 Inhibitor on Pain Control and Rotator Cuff Healing Following Arthroscopic Rotator Cuff Repair - Prospective Randomized Comparative Study -**

**Joo Han OH**<sup>1</sup>, **Hyuk Jun SEO**<sup>2</sup>, Ye-Hyun LEE<sup>3</sup>, Hye-Yeon CHOI<sup>4</sup> and Sae Hoon KIM<sup>1</sup>

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**EPS-192 Factors Influencing the Restoration of Acromiohumeral Distance of Immediate Postoperative Period in Patients Who Have Rotator Cuff Repair Surgery with Large-to-Massive Rotator Cuff Tears**

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**EPS-193 Short- to Mid-Term Result of Arthroscopic Rotator Cuff Repair in Rajavithi Hospital**

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**EPS-194 Evaluation of AAOS Appropriate Use Criteria for the Management of Full - Thickness Rotator Cuff Tears**

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**EPS-195 Factors Affecting Clinical Outcome in Large/Massive Cuff Tears with Postoperative Structural Failure**

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**EPS-196 Lengthening of the Subscapularis Tendon as a Sign of Partial Tearing in Continuity**

**Dominik C MEYER**, Stefan M ZIMMERMANN, Karl WIESER, Susanne BENSLE, Christian GERBER and Marco GERMANN

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**EPS-197 Natural History of Rotator Cuff Tears in the General Population**

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**EPS-198 Factors Affecting Clinical Outcome in Large/Massive Tears with Postoperative Intact Cuff Integrity**

**Hiroki OHZONO**<sup>1</sup>, **Masafumi GOTOH**<sup>2</sup>, Hidehiro NAKAMURA<sup>1</sup>, Hirokazu HONDA<sup>1</sup>, Ryo TANESUE<sup>1</sup>, Hisao SHIMOKOBE<sup>1</sup>, Isao SHIRACHI<sup>2</sup>, Mitsui YASUHIRO<sup>2</sup> and Naoto SHIBA<sup>1</sup>

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**EPS-199 Healing Disturbance with Suture Bridge Configuration Repair in Rabbit Rotator Cuff Tear**  
**Sae Hoon KIM**<sup>1</sup>, Bong Young KONG<sup>1,2</sup>, Hwa Ryeong LEE<sup>1</sup>, Young Eun CHOI<sup>1</sup> and Do Hyeon HWANG<sup>1</sup>

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**EPS-200 Correlation between Degree of Torn Supraspinatus Tendon and Muscle Atrophy in Rotator Cuff Disease**

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**EPS-201 Arthroscopic Rotator Cuff Repair with Absorbable Artificial Biomaterial Augmentation**

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**EPS-202 Outcomes of Arthroscopic Rotator Cuff Repair with Margin Convergence Method**

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**EPS-203 The Result of Allogeneic Dermal Matrix Augmentation of Arthroscopic Repair for Large to Massive Rotator Cuff Tear: Preliminary Report**

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**EPS-206 Postoperative Retear of Arthroscopic Double Row Fixation and Suture Bridge Repair for Rotator Cuff Tears**

**Hiroshi HASHIGUCHI**<sup>1</sup>, Satoshi IWASHITA<sup>1</sup>, Atsushi OHKUBO<sup>1</sup> and Shinro TAKAI<sup>2</sup>

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**EPS-207 Correlation of Clinical Symptoms and Function with Fatty Degeneration of Infraspinatus in Rotator Cuff Tears**

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**EPS-208 Comparison of the Efficacy of Glenohumeral Migration Measurement Methods in Rotator Cuff Disease**

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**EPS-209 Mid-Term Outcomes for the Arthroscopic Rotator Cuff Repair on Both Shoulder : Minimum 3 Years Follow up Study-**

**Chang-Hyuk CHOI**, Seung Bum CHAE, Sang-Hwa LEE, Suk-Jun KIM, Jae-Kun LEE, Yoon-Sik EOM and Jae-Suk AHN

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**EPS-210 Biomechanical Effect of Superior Capsule Reconstruction Using Arthroflex for Irreparable Rotator Cuff Tear: A Cadaveric Study**

**Teruhisa MIHATA**<sup>1,2</sup>, Matthew A CAVAGNARO<sup>2,3</sup>, Christopher Nh BUI<sup>2</sup>, Masaki AKEDA<sup>2</sup>, Michael KUENZLER<sup>2</sup>, Alexander B PETERSON<sup>2</sup>, Yasuo ITAMI<sup>1</sup>, Masashi NEO<sup>1</sup> and **Thay Q LEE**<sup>2</sup>

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**EPS-211 Does Rotator Cuff Repair Improve Muscle Atrophy and Fatty Infiltration?**

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**EPS-212 The Morphological Examination of the Cervical Nerve Root in Rotator Cuff Tear Patients by an Ultrasound**

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**EPS-213 Quantitative Evaluation of Muscle Atrophy of the Rotator Cuff Muscle Using Three-Dimensional Magnetic Resonance Imaging**

Tsuyoshi SASAKI<sup>1</sup>, Atsushi YAMAMOTO<sup>1</sup>, Noritaka HAMANO<sup>1</sup>, Hitoshi SHITARA<sup>1</sup>, Tsuyoshi ICHINOSE<sup>1</sup>, Toshihisa OSAWA<sup>2</sup>, Daisuke SHIMOYAMA<sup>2</sup>, Tsutomu KOBAYASHI<sup>3</sup> and Kenji TAKAGISHI<sup>1</sup>  
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**EPS-214 Effect of Arthroscopy-Guided Suprascapular Nerve Block Combined with Ultrasound -Guided Interscalene Brachial Plexus Block in Arthroscopic Cuff Repair: A Randomized Controlled Trial**

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**EPS-215 The Characteristics of Rotator Cuff Tears in Patients Over 70 Years Old.**

Atsushi OHKUBO<sup>1</sup>, Hiroshi HASHIGUCHI<sup>1</sup>, Satoshi IWASHITA<sup>1</sup> and Shinro TAKAI<sup>2</sup>  
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**EPS-216 Does Augmentation with a Reinforced Biceps Tendon Improve Rotator Cuff Healing in High Grade PASTA Lesions?**

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**EPS-217 A Novel, Fast, Safe and Effective All-Inside Arthroscopic Rotator Cuff Repair Technique: Preliminary Results in 850 Consecutive Cases.**

George Anthony MURRELL, Ashley A ELKINS and Patrick H LAM  
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**EPS-218 Ultrasonographic Diagnosis of the Partial Articular Supraspinatus Tendon Avulsion (PASTA)**

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**EPS-219 Arthroscopic Repair in Confirmed Intratendinous Rotator Cuff Tear - Clinical and Radiological Outcomes at Midterm Follow-Up -**

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**EPS-220 Natural History of Nonoperatively Treated Symptomatic Rotator Cuff Tears and Risk Factors for Tear Progression**

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**EPS-221 Return to Sports Activity after Arthroscopic Rotator Cuff Repair on the Middle-Aged and Senior Patients**

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**EPS-222 Arthroscopic All-Inside Repair of a PASTA Lesion**

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**EPS-223 Effect of Neuromuscular Control on the Shoulder Function after Rotator Cuff Repair -Availability of Time to Peak Torque and Acceleration Time-**

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**EPS-224 Revision Rotator Cuff Repair; A Single Center Experience of 76 Consecutive Cases**

Alexander ANTONIADIS, Sabrina CATANZARO, Tobias DIETRICH, Christian GERBER and Dominik MEYER  
 Department of Orthopaedic Surgery, University Hospital Balgrist, Switzerland

**EPS-225 Long Term Results of Rotator Cuff Repair. A Retrospective Study of 972 Patients, with More than Ten Years Follow Up.**

Guillaume ANDRÉ<sup>1</sup>, Adrien JACQUOT<sup>1</sup>, Hélène AGNERAY<sup>1</sup>, Philippe COLLIN<sup>2</sup>, Jean-François KEMPF<sup>3</sup> and Daniel MOLÉ<sup>1</sup>  
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**EPS-226 Arthroscopic Assisted Lower Trapezius Transfer for Irreparable Postero-Superior Cuff Tears with a Lack of Active External Rotation: Review of 10 Cases**

Philippe VALENTI, Constantina MORAITI, Felipe REINARES and Alexandre CERLER  
 Department of Orthopaedic Surgery, Private Hand institute Paris, France

**EPS-227 Effect of Rotator Cuff Tears on Glenoid Morphology: Three-Dimensional Analysis Using Computed Tomography Images**

Yukitaka FUJISAWA<sup>1,2</sup>, Teruhisa MIHATA<sup>2</sup>, Tsuyoshi MURASE<sup>3</sup>, Kazuomi SUGAMOTO<sup>3</sup> and Masashi NEO<sup>2</sup>  
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**EPS-228 Arthroscopic Rotator Cuff Repair Using Graft Augmentation of Fascia Lata or Large and Massive Cuff Tears**

Takeshi KOKUBU, Yutaka MIFUNE, Atsuyuki INUI, Ryosuke SAKATA, Yoshifumi HARADA, Fumiaki TAKASE, Yasuhiro UEDA, Takeshi KATAOKA and Masahiro KUROSAKA  
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**EPS-229 Delaminated Rotator Cuff Tear: Characteristics and Anatomical Healing after Arthroscopic Rotator Cuff Repair - Comparison with Non-Delaminated Rotator Cuff Tear**

Ye Hyun LEE<sup>1</sup>, Joo Han OH<sup>2</sup>, Jieun KWON<sup>1</sup>, Sang Hyun PARK<sup>1</sup> and Min Ho LEE<sup>1</sup>  
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**EPS-230 Sequential Change of Isokinetic Strength of Shoulder after Arthroscopic Rotator Cuff Repair**

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**EPS-231 Clinical Outcomes of Treatments for Massive Rotator Cuff Tears: Partial Repair Procedure and Anchoring Procedure Using Bicipital Long Tendon (LHB)**

Yukihiko HATA, Norio ISHIGAKI and Tomoyuki MATSUBA  
Shoulder Medical Center, Azumi Hospital, Japan

**EPS-232 Modified Suture-Bridge Technique to Prevent a Marginal Dog-Ear Deformity after Arthroscopic Rotator Cuff Repair an Ex Vitro Experiment**

Bin ZHU<sup>1</sup>, Arnold ADIKRISHNA<sup>1</sup>, Rizki Fajar ZULKARNAIN<sup>1</sup>, Ga-Yeong KIM<sup>1</sup>, Han-Pyo HONG<sup>1</sup>, Hong-Jun JUNG<sup>1</sup>, Jun TAN<sup>2</sup> and In-Ho JEON<sup>1</sup>  
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**EPS-233 Serial Structural Evaluation of Rotator Cuff Repair Using Magnetic Resonance Imaging – Does Sugaya’s Classification Correlate with the Postoperative Clinical Outcomes?**

Eurado Angeli MALAVOLTA, Mauro Emilio GRACITELLI, Frederico Faleiro RAMOS, Jorge Henrique ASSUNÇÃO, César Betoni GUGLIELMETTI, Marcelo Bordalo RODRIGUES and Arnaldo Amado Ferreira NETO  
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**EPS-234 To Study the Effectiveness of Pune Shoulder Rehabilitation Protocol (PSRP) in Recruiting Supraspinatus (SSP) & Infraspinatus (ISP) in Operative and Non-Operative Patients of Various Shoulder Conditions.**

Pavan Dayanidhi DESAI, Asutosh Arvind AJARI, Tejashwini Ashutosh AJARI and Ashish Sudhakar BABHULKAR  
Department of Shoulder and Sports Injury, DeenanthMangeshkar Hospital, India

**EPS-235 Suture Direction for the Minimal Tensile Rotator Cuff Repair and Rotator Cuff Repair Tension as a Determinant of Functional Outcome.**

Yongbeom LEE  
Department of Orthopaedic Surgery, Hallym University Sacred Heart Hospital, Republic of Korea

**EPS-237 Arthroscopic Bridging Repair Using Human Dermis Allograft Can Be an Option for Irreparable Rotator Cuff Tears**

In-Bo KIM, Ju Seon JEONG, Ji Min LEE and Da Young GO  
Department of Orthopedic Surgery, Bumin Busan Hospital, Republic of Korea

**EPS-238 The Acromion in Supraspinatus Outlet and Rockwood Tilt Views by Three-Dimensional Computed Tomography of the Shoulder**

Adinun APIVATGARON<sup>1</sup>, Suthee THARAKULPHAN<sup>2</sup> and Bancha CHERNCHUJIT<sup>1</sup>  
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**EPS-239 Traumatic Massive Rotator Cuff Tear Associated with Glenoid Cavity Fracture of Scapula: Rare Case Report**

Chaegwan KONG and Jaeho LEE  
Department of Orthopaedic Surgery, The Catholic University Of Korea, Uijeongbu St. Mary`s Hospital, Republic of Korea

**EPS-240 Relationship between Arthroscopic Reparability of Massive Rotator Cuff Tears and Preoperative Magnetic Resonance Imaging Scans**

Chang-Woo SEOK, Soo-Cheol AHN, Joon KWON and Seung-Ho KIM  
Department of Orthopaedic Surgery, Madi Hospital, Republic of Korea

**EPS-241 Arthroscopic Rotator Cuff Repair under Atmospheric Pressure Condition - Technical Note : Arthroscopic Rotator Cuff Repair without Pump System -**

Jin Woong YI and Youn Moo HEO  
Department of Orthopaedic Surgery, Konyang University Hospital, Republic of Korea

**EPS-242 Macroscopic Assessment and Clinical Implication of Synovitis in Rotator Cuff Tear**

Chris Hyunchul JO, Ji Sun SHIN and Cheol Yong PARK  
Department of Orthopedic Surgery, SMG-SNU Boramae Medical Center, Republic of Korea

**EPS-243 Characteristics of Frozen Shoulder with Articular Side Rotator Cuff Tears**

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<sup>1</sup>Department of Orthopaedic Surgery, Shinshu University School of Medicine, Japan, <sup>2</sup>Shoulder Medical Center, North Alps Medical Center Azumi Hospital, Japan

**EPS-244 Comparison of Clinical and Radiological Outcomes after Repair between Delaminated and Non-Delaminated Rotator Cuff Tear**

Heui-Chul GWAK, Chang-Wan KIM, Jung-Han KIM and Sang-Myung ROH  
Department of Orthopaedic Surgery, Inje University Busan Paik Hospital, Republic of Korea

**EPS-245 Standardization Process for the Documentation and Evaluation of Surgical Complications after Arthroscopic Rotator Cuff Tear Reconstruction**

Holger DURCHHOLZ, Andreas MUELLER, Matthias FLURY, Hans-Kaspar SCHWYZER and Laurent AUDIGÉ  
Department of Upper Extremity, Schulthess Clinic, Switzerland

**EPS-246 Successful Outcome of Arthroscopic Single-row Repair with Appropriate Procedure for Large or Massive Rotator Cuff Tears.**

Koumei MATSUURA and Kunichika SIN  
Department of Orthopaedics, Saiseikai Yahata General Hospital, Japan

**EPS-247 Clinical Effect of Supraspinatus Tendon Release in Rotator Cuff Repair**

Sunghoon MOON, Jaewoo LEE and Youngjun NAM  
Department of Orthopaedic surgery, Kangwon National University Hospital, Republic of Korea

**EPS-248 Medial Row Mattress Knots in Transosseous-Equivalent Rotator Cuff Repair Do Not Improve Footprint Contact and Inhibit Self-Reinforcement Compared to Knotless Repair**

Maxwell C PARK<sup>1,2</sup>, Alexander PETERSON<sup>1</sup>, Michelle H MCGARRY<sup>1</sup>, Chong J PARK<sup>3</sup> and Thay Q LEE<sup>1,4</sup>  
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**EPS-249 The Hug-Up Test: A New and Sensitive Test for Diagnosing a Supraspinatus Tear**

Yulei LIU, Yingfang AO, Hui YAN and Guoqing CUI  
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**EPS-250 Clinical Research on the Pathological Types of the Massive Rotator Cuff Tear**

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**Sports Medicine**

**EPS-251 Arthroscopic Spur Resection for Valgus Extension Overload Syndrome of the Elbow in Baseball Players: Who Returns to Play Earlier?**

Jin-Young PARK<sup>1</sup>, Jang-Eun KIM<sup>2</sup>, Jae-Hyung LEE<sup>1</sup>, Kyung-Soo OH<sup>3</sup> and Seok Won CHUNG<sup>3</sup>  
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- EPS-252 Anteroinferior Humeral Entry in MUCL Reconstruction Using Docking Technique in Baseball Players; Does It Provide Consistent Radiological and Excellent Clinical Outcomes?**  
 Jin-Young PARK<sup>1</sup>, **Jun-Gyu LEE**<sup>2</sup> and Jae-Hyung LEE<sup>1</sup>  
<sup>1</sup>Global Center for Shoulder, Elbow & Sports, NEON ORTHOPAEDIC CLINIC, Republic of Korea, <sup>2</sup>Joint & Arthroscopic center, Hi Hospital, Republic of Korea
- EPS-253 Shoulder and Elbow Pain Experience among Young Baseball Players in Japan**  
**Yoshikazu KIDA**<sup>1</sup>, Toru MORIHARA<sup>1</sup>, Yoshihiro KOTOURA<sup>1</sup>, Naoki YOSHIOKA<sup>1</sup>, Ryuhei FURUKAWA<sup>1</sup>, Tsuyoshi SUKENARI<sup>1</sup>, Haruhiko NAKAGAWA<sup>1</sup>, Tatsuya HOJO<sup>2</sup>, Hiroyoshi FUJIWARA<sup>1</sup> and Toshikazu KUBO<sup>1</sup>  
<sup>1</sup>Department of Orthopaedics, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Japan, <sup>2</sup>Faculty of Health and Sports Science, Doshisha University, Japan
- EPS-254 The Morphological Change of the Ulnar Collateral Ligament of Elbow in High School Baseball Pitchers with and without Prior Elbow Symptom by Sonographic Assessment.**  
**Tsuyoshi TAJIKA**<sup>1</sup>, Atsushi YAMAMOTO<sup>1</sup>, Noboru OHYA<sup>1</sup>, Tsuyoshi ICHINOSE<sup>1</sup>, Daisuke SHIMOYAMA<sup>1</sup>, Hitoshi SHITARA<sup>1</sup>, Tsuyoshi SASAKI<sup>1</sup>, Tsutomu KOBAYASHI<sup>2</sup> and Kenji TAKAGISHI<sup>1</sup>  
<sup>1</sup>Department of Orthopaedic Surgery, Gunma University Graduate School of Medicine, Japan, <sup>2</sup>Department of Physical Therapy, Takasaki University of Health and Welfare, Japan
- EPS-255 Elbow Valgus Laxity after Ulnar Collateral Ligament Reconstruction in Competitive Athletes**  
**Teruhisa MIHATA**<sup>1,3,4</sup>, Kunimoto FUKUNISHI<sup>2</sup>, Akihiko HASEGAWA<sup>3</sup>, Yasuo ITAMI<sup>1</sup>, Mutsumi OHUE<sup>4</sup> and Masashi NEO<sup>1</sup>  
<sup>1</sup>Department of Orthopaedic Surgery, Osaka Medical College, Japan, <sup>2</sup>Department of Orthopaedic Surgery, Kawabata hospital, Japan, <sup>3</sup>Department of Orthopaedic Surgery, Daiichi Towakai Hospital, Japan, <sup>4</sup>Department of Orthopaedic Surgery, Katsuragi hospital, Japan
- EPS-256 Clinical Outcome of Arthroscopic Debridement of OCD (Osteochondritis Dessicans) of Elbow in Elite Athletes**  
 Young-Min NOH<sup>1</sup> and Jin-Young PARK<sup>2</sup>  
<sup>1</sup>Department of Orthopaedic Surgery, Wonkwang University Sanbon Hospital, Republic of Korea, <sup>2</sup>Center for Shoulder, Elbow and Sports, Neon Orthopaedic Clinic, Republic of Korea
- EPS-257 Is Preventive Rehabilitation in Youth Baseball Players Helpful? And, Are Pitchers More Dangerous than Positional Players?**  
 Jae Hyung LEE<sup>1</sup>, Jin Young PARK<sup>1</sup> and Myung Joo CHA<sup>2</sup>  
<sup>1</sup>Department of Orthopaedic Surgery, Center for Shoulder, Elbow and Sports at Neon Orthopaedic Clinic, Republic of Korea, <sup>2</sup>Department of Sports Rehabilitation, GEM Fitness Center, Republic of Korea
- EPS-259 Arthroscopic Trans-cystic Excision for Spinoglenoid Notch Cyst. Technical Note**  
 Junkyung HWANG, Seungman LEE, Dongwook KIM and Seunggil BAEK  
 Department of Orthopaedic Surgery, Goodssen hospital, Republic of Korea
- EPS-261 Treatment of AC Dislocation by Reconstructing CC and AC Ligaments with Allogenic Tendon and Compared with Hook Plate**  
 Guheng WANG, Renguo XIE, Tian MAO and Shuguo XING  
 Department of Hand Surgery, Affiliated Hospital of Nantong University, China
- EPS-262 Is Arthroscopic Remplissage a Tenodesis or Capsulomyodesis? An Anatomic Study**  
**Alexandre LÄDERMANN**<sup>1</sup>, Paolo ARRIGONI<sup>2</sup>, Johannes BARTH<sup>3</sup>, Pablo NARBONA<sup>4</sup>, Stephen S BURKHART<sup>5</sup> and Patrick J DENARD<sup>6</sup>  
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- EPS-263 The Clinical and Radiographic Results of Arthroscopic Coracoclavicular Ligament Reconstruction with Remnant Preservation for the Treatment of Rockwood Type-V Acromioclavicular Joint Separations**  
 Fenglong LI and Chunyan JIANG  
 Department of Sports Medicine, Beijing Ji Shui Tan Hospital, China
- EPS-264 Displaced Midshaft Clavicle Fracture in Athletes – Should We Operate?**  
 Benno EJNISMAN, Carlos Vicente ANDREOLI, Alberto Castro POCHINI, Paulo BELANGERO, Eduardo FIGUEIREDO, Carina COHEN and Neydson SOLPOSTO  
 Department of Sports Medicine, Federal University of São Paulo, Brazil
- EPS-265 Valgus Extension Overload Syndrome with Olecranon Tip Fracture in Adolescent Elite Players**  
**Hyun-Yul YOO**<sup>1</sup>, Jin-Young PARK<sup>2</sup> and Kyung-Soo OH<sup>3</sup>  
<sup>1</sup>Department of Orthopaedic Surgery, Leechuntak Hospital, Republic of Korea, <sup>2</sup>Department of Orthopaedic Surgery, Neon Orthopaedic Surgery, Republic of Korea, <sup>3</sup>Department of Orthopaedic Surgery, Konkuk University Medical Center, Republic of Korea
- EPS-266 Analysis of Ultrasound Expression and Functional Outcome Correlation and Predictor Factors in Rotator Cuff Repair**  
**Ri Long JIN**, You Zhi CAI, Peng Cheng GU and Xiang Jin LIN  
 Department of Orthopaedic Surgery/ Sports Medicine Centre, The First Affiliated Hospital of Zhejiang University College of Medicine, China
- EPS-267 Prevalence of Thoracic Outlet Syndrome in Adolescent Baseball Players.**  
**Takahiro IGARI**, Kenichi OTOSHI, Takahiro KAGA, Hiroaki SHISHIDO and Shinichi KONNO  
 Department of Orthopaedic Surgery, Fukushima Medical University School of Medicine, Japan
- EPS-268 Shoulder Stretching Intervention Reduced Incidence of Shoulder and Elbow Injuries in High School Baseball Players**  
**Hitoshi SHITARA**<sup>1</sup>, Atsushi YAMAMOTO<sup>1</sup>, Daisuke SHIMOYAMA<sup>1</sup>, Tsuyoshi ICHINOSE<sup>1</sup>, Tsuyoshi SASAKI<sup>1</sup>, Noritaka HAMANO<sup>1</sup>, Tsuyoshi TAJIKA<sup>1</sup>, Tsutomu KOBAYASHI<sup>2</sup>, Toshihisa OSAWA<sup>3</sup> and Kenji TAKAGISHI<sup>1</sup>  
<sup>1</sup>Department of Orthopaedic Surgery, Gunma University Graduate School of Medicine, Japan, <sup>2</sup>Department of Physical Therapy, Takasaki University of Health and Welfare, Japan, <sup>3</sup>Department of Orthopaedic Surgery, National Hospital Organization Takasaki General Medical Center, Japan
- EPS-269 Osteochondral Autograft Transfer System (OATS) as a Surgical Alternative to Glenoid Chondral Lesion. An All-arthroscopic Technique: A Case Report**  
 Felipe TORO, Daniel FISCHMAN, Rafael CALVO, Claudio MORAGA, Felipe REINARES, Francisco RUIZ, Rene POZO and Fernando PINOCHET  
 Department of Orthopaedic Surgery, Facultad de Medicina Clinica Alemana-Universidad del Desarrollo, Chile
- EPS-270 SLAP Lesions in Throwing Athletes: New Repair Method and Sports Return**  
**Kazutomo ONISHI**, Hiroyuki SUGAYA, Norimasa TAKAHASHI, Morihito TOKAI, Nobuaki KAWAI, Yusuke UEDA, Shota HOSHIKA, Hiroshige HAMADA, Keisuke MATSUKI and Tomoyuki MATSUBA  
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- EPS-271 Pectoralis Major Muscle Study Using Elastography in Weight Lifting Athletes**  
 Alberto De Castro POCHINI, Benno EJNISMAN, Carlos Vicente ANDREOLI, Gabriela OLIVEIRA, Artur FERNANDES and Andre YAMADA  
 Department of Orthopaedic, Unifesp, Brazil
- EPS-272 Factors Affecting Quality of Acromioclavicular Joint Reduction in Arthroscopic Indirect Coracoclavicular Fixation Technique**  
**Yon-Sik YOO**, Byung-Su KIM and Seong-Jin LEE  
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**EPS-273 The Prevalence of Scapular Dyskinesia and Its Association with Throwing Disorder in High School Baseball Players.**

Ryohei SATO<sup>1</sup>, Takahiro IGARI<sup>1</sup>, Hiroaki SHISHIDO<sup>1</sup>, Shinichi KONNO<sup>1</sup>, Kenichi OTOSHI<sup>2</sup> and Takahiro KAGA<sup>2</sup>  
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**EPS-274 Comparison of Biceps Tenodesis with Repair for Surgical Treatment of Type II SLAP in Patients Over 40 Years Old**

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**EPS-275 Anatomic Tunnel Placement Is Not Feasible by Transclavicular-Transcoracoid Drilling Technique for Coracoclavicular Reconstruction; A Cadaveric Study**

Tae-Kang LIM<sup>1</sup>, Kyoung-Hwan KOH<sup>2</sup>, Min-Soo SHON<sup>3</sup>, Jae-Hyn PARK<sup>1</sup> and Sang-Young LEE<sup>1</sup>  
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**EPS-276 Intraoperative and Perioperative Complications of Arthroscopic Coracoclavicular Stabilization**

Jae-Hyun PARK, Sang-Young LEE, Hwang-Kyun OH and Tae-Kang LIM  
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**EPS-277 Bennett's Lesion of the Shoulder: A Current Concepts Review**

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**EPS-278 The Treating Effect, Injection Doses, Injection Sites, and Injection Techniques of Steroid Injection for Adhesive Capsulitis: A Systematic Review and Meta-analysis of Randomized Controlled Studies**

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**EPS-279 Does Knot Matter for SLAP Repair? - Knotache in Symptomatic Recurrent SLAP Lesion**

Ho Yun JOUNG<sup>2</sup>, Woo KIM<sup>3</sup>, Dae Ha KIM<sup>1</sup>, Seok Hoon YANG<sup>1</sup>, Sung Min RHEE<sup>1</sup>, Hyeon Jang JEONG<sup>1</sup> and Joo Han OH<sup>1</sup>  
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**EPS-282 Treatment of Refractory Lateral Epicondylitis: Polydeoxyribonucleotide (PDRN) versus Extracorporeal Shock Wave Therapy (ESWT)**

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## Tendinopathy

**EPS-280 Surgical Treatment of Chronic Lateral Epicondylitis with Lateral Collateral Ligament Insufficiency**

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**EPS-281 Lateral Elbow Tendinopathy: Correlation between Ultrasound Findings and Clinical Outcomes after Percutaneous Ultrasonic Tenotomy**

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