OCTOBER 7, 2022

IWAS ISTANBUL, TURKEY

7th WRIST ARTHROSCOPY DAYS

(WITH INTERNATIONAL PARTICIPATION)

PROCEEDINGS

COURSE ORGANIZING COMMITTEE

Prof Dr Kahraman OZTURK

Prof Dr Christophe MATHOULIN

Prof Dr Tufan KALELI

Prof Dr I Bulent OZCELIK

Assist Prof Dr Osman ORMAN

SCIENTIFIC COMMITTEE FOR ORAL PRESENTATIONS

Dr Christophe Mathoulin

Dr Kahraman Ozturk

Dr Tufan Kaleli

Dr İsmail Bulent Ozcelik

Dr Egemen Altan

Dr Mehmet Demirtaş

Dr Igor Golubev

Dr Amy Aly

Dr Ayşe Şencan

Dr Mehmet Baydar

SCIENTIFIC COMMITTEE

Dr Christophe Mathoulin

Dr Kahraman Ozturk

Dr Tufan Kaleli

Dr Aydın Yuceturk

Dr Kadir Ertem

Dr Mehmet Baydar

Dr Osman Orman

Dr Ayşe Sencan

Dr Mehmet Demirtas

Dr Abd Al Aziz Monsef

Dr Hayati Yazici

Dr Ismail Bulent Ozcelik

Dr Tackın Ozalp

Dr Egemen Altan

Dr Amy Aly

Dr Igor Golubev

SCIENTIFIC PROGRAM

October 7, 2022, Friday

07:00: Registration

08:00 – 09:30: Opening Remarks

09:30- 10:15: Oral Presentation Session

Chairs: Kadir Ertem, Mehmet Baydar

- Comparison of Clinical Outcomes in Open and Arthroscopic Assisted Mini Open Proximal Row Carpectomy for Lichtman Stage IIIB & IIIC Kienböck's Disease

I. Bulent Ozçelik, **Erdem Ozden**

- The effect of arthroscopic triangular fibrocartilage complex (TFCC) repair on accompanying extensor carpi ulnaris (ECU) tendinitis and synovitis in TFCC tears

Ugur Bezirgan, Yener Yogun, Bedir Ozgencil, **Merve Dursun Savran**, Aysun Genc, Mehmet Armangil

- Comparison of the Effects of Dorsal and Volar Surgical Approaches on the Wrist Kinematics in Management of Scaphoid Nonunion

Ahmet Serhat Aydın, Mehmet Demirel, Omer Ayik, Okyar Altas, Halil Ibrahim Balcı, Hayati Durmaz

- Outpatient Surgery for Benign Soft Tissue Tumors of Hand

Z.Mert Asfuroglu, **Suayip Akinci**

- Suture-Button Fixation and Arthroscopic Dorsal Ligamento-Capsulodesis in Chronic Scapholunate Dissociation

I. Bulent Ozçelik, **Ali Cavit**

- Comparison of One Tunnel Transosseous and Suture-Anchor Foveal Repairs for Arthroscopic Triangular Fibrocartilage Complex Tear

Barış Acar, Osman Orman, Ethem Ayhan Unkar, Ayşe Sencan, Kahraman Ozturk

- Comparing the Outcomes of Open and Arthroscopic Wafer Procedure for the Treatment of Ulnar Impaction Syndrome

Osman Orman, **Barıs Acar**, Mehmet Baydar, Ethem Ayhan Unkar, Kahraman Ozturk

- Patient Reported Outcomes of Trapeziectomy & Abductor Pollicis Longus Tendon Suspensionplasty for First Carpometacarpal Osteoarthritis

Erdem Ozden

- Extensor Carpi Ulnaris “Turn Around” Ligamentoplasty for Distal Radioulnar Joint Instability

I. Bulent Ozcelik, **Ali Cavit,** Emre Agca

10:30- 10:45: Coffee Break

10:45- 12.00: Session

Chairs: Taçkın Özalp, Egemen Altan

- Arthroscopic evaluation of TFCC ruptures and repair

Mehmet Demirtas

- Arthroscopic Guided Osteotomy and Reduction of Malunited Volar Shear Distal Radial Fracture

Amr Aly

- Arthroscopic Wafer Procedure Can Be Done in a Limited Indication (Be Aware)

Abd El Aziz Monsef

- Scaphoid Pseudoarthrosis Arthroscopic Treatment

Igor Golubev

- Arthroscopic Treatment of Thumb Basilar Joint Arthrosis by Dermal Graft Resurfacing

Shahram Nazerani

- Scapholunate Ligament Dissociation: From Open Surgery to Arthroscopic Treatment

Christopher Mathoulin

12:00-13:00: Lunch

13:00-18:00: Live Surgery

Live surgical cases will be broadcasted from two operating theatres consecutively

Cases of live surgery

Kienböck's Disease- lunatum excision and dorsal capsulodesis

Lunate intraosseous ganglion cyst- curettage and bone grafting

Dorsal Ganglion- Ganglion excision and dorsal capsulodesis

TFCC injury- TFCC soft tissue repair

Ulnar impaction- Wafer procedure

Thumb CMC joint arthritis- Osteophyte excision and palmaris longus interposition

ORAL PRESENTATİON ABSTRACTS

OP-1

Comparison of Clinical Outcomes in Open and Arthroscopic Assisted Mini Open Proximal Row Carpectomy for Lichtman Stage IIIB & IIIC Kienböck's Disease

I.Bulent Ozçelik[1], Erdem Ozden[2]

[1] IST-EL Hand Surgery, Microsurgery and Rehabilitation Group, Gaziosmanpasa Private Hospital, Istanbul, Turkey

[2] University of Health Sciences Gaziosmanpasa Research and Training Hospital, Istanbul, Turkey

Aim: Proximal row carpectomy (PRC) can be performed in the late stages of Kienböck's disease using the traditional technique or arthroscopically. The aim of this study was to describe the arthroscopic-assisted mini-open PRC technique and to compare the functional results with the open PRC technique in advanced stage Kienbock disease.

Material and Methods: The medical records of patients with Kienböck's disease who underwent open PRC between 2006-2010 (Cohort-A) and arthroscopic assisted PRC (AAPRC) between 2010-2018 (Cohort-B) were analyzed. The Quick Disabilities of the Arm, Shoulder, and Hand (QDASH), visual analog scale (VAS), and Modified Mayo Wrist Scores were compared, which were obtained at the early postoperative (third month) and final follow-up.

Results: Cohort-A had 14, and Cohort-B had 21 patients. The pre-operative, early, and final mean VAS scores were 7, 3, and 0.3 for Cohort-A, while the scores were 7, 0.3, and 0.1 respectively for Cohort B. The pre-operative mean QDASH scores decreased from 69 to 34 at the third month and 6.1 on the final follow-up visit for Cohort-A and 77 to 18, and 5 for Cohort-B. The final Mayo wrist scores were excellent in four, good in four, and moderate in six of the Cohort-A patients, and excellent in 11, good in eight, and moderate in two of the patients of Cohort-B. Mean flexion degrees increased to 52 from 43 for Cohort-A and 62 from 41 degrees for Cohort-B.

Conclusion: AAPRC, compared to the open PRC, resulted in increased wrist motion and increased Mayo wrist scores in the long term. Also, the 3rd-month patient-related outcomes revealed favourable results in the AAPRC group. We

attribute these findings to the earlier initiation of postoperative wrist motion and the less invasive character of the AAPRC procedure.

Keywords: Kienböck disease, proximal row carpectomy, arthroscopically assisted mini open surgery

OP-2

The effect of arthroscopic triangular fibrocartilage complex (TFCC) repair on accompanying extensor carpi ulnaris (ECU) tendinitis and synovitis in TFCC tears.

Ugur Bezirgan[1], Yener Yogun[1], Bedir Ozgencil[1], Merve Dursun Savran[1], Aysun Genc[1], Mehmet Armangil[1]

[1] Ankara University Medical Faculty, Department of Orthopedics and Traumatology, Hand and Upper Extremity Surgery Division, Ankara, Turkiye

Aim: Diagnosis and treatment of ulnar-sided pain in the wrist are difficult due to the complexity of the anatomical structure and the similarity of the signs and symptoms of possible diagnoses. TFCC acts as a “pulley” for the ECU tendon. Possible diagnoses for ulnar corner pain are triangular fibrocartilage compact (TFCC) lesion, extensor carpi ulnaris (ECU) tendinitis and instability, ulnocarpal impact syndrome, distal radioulnar joint (DRUJ) instability, arthritis, lunotriquetral ligament injuries, pathology of the pisotriquetral joint; and these can coexist. The effect of arthroscopic TFCC repair on ECU tendinitis and synovitis is open to discussion. The study's main purpose is to examine the effect of arthroscopic TFCC repair on untreated ECU tendinitis and synovitis.

Material and Methods: Thirteen patients who underwent arthroscopic TFCC repair in our clinic and preoperatively demonstrated ECU tendon pathology with magnetic resonance imaging (MRI) were included in the prospective study. Patients under 18 years of age, over 65 years of age, patients with a history of bilateral disability, patients with neuromuscular disease, patients with concomitant wrist fractures, and patients who did not have a 1-year follow-up were excluded. Pre- and postoperative VAS, pre-and postoperative tendinitis and synovitis grade (pre-operative MRI, postoperative USG, and MRI), postoperative Mayo and PRWE score, postoperative grip strength of the operated and control sides, short and long diameters of the EKU tendon in ultrasonography were recorded. The relationship between patients' ulnar

variance and ECU tendinitis and synovitis was examined. Pre- and post-surgical scores, grip strength, and ECU diameters were compared for the operated and control sides.

Results: The mean age of 13 patients, 9 of whom were women (69.23%), included in the study was 39.54±13.54, and the mean follow-up period was 26±7.25 months. While there was no significant difference between pre-and postoperative tendinitis or synovitis levels, the visual analog score (VAS) decreased significantly (8.46±1.33 vs. 3.00±2.31, p=0.0016). The mean Mayo score is 71.54±12.97 and the mean PRWE is 29.08±16.18. While the grip strength was 18.28±7.51 on the surgical side, it was 21.78±7.83 on the control side, and the grip strength on the surgical side was significantly lower (p=0.0252). The operated side has an average of 84.91% grip strength compared to the control side. The mean ulnar variance is 0.81±2.27. There was no effect of ulnar variance on ECU tendinitis or synovitis score (rho=0.1388, 0.0970). There was no significant difference between the operated and control sides in terms of either long or short diameter (p=0.1720, p=0.1500). While the short diameter did not affect the synovitis – tendinitis score (rho=0.5162), it was observed that the bigger the long diameter, the higher the synovitis score (rho=0.5162).

Conclusion: Differential diagnosis of ulnar-sided wrist pain is difficult. Arthroscopic TFCC repair is important for ECU tendon pathology. In the presence of ECU tendon pathologies accompanying TFCC lesions, arthroscopic TFCC repair has no significant effect on the healing of ECU pathologies. Additional surgical interventions are mandatory for pain caused by the ECU tendon.

Keywords: TFCC, ECU, tendinitis, synovitis, wrist arthroscopy

OP-3

Comparison of the Effects of Dorsal and Volar Surgical Approaches on the Wrist Kinematics in Management of Scaphoid Nonunion

Ahmet Serhat Aydın[1], Mehmet Demirel[2], Omer Ayik[3], Okyar Altas[4], Halil Ibrahim Balcı[2], Hayati Durmaz[2]

[1] University of Health Sciences Okmeydani Cemil Tascıoglu City Hospital, Istanbul, Turkey

[2] Istanbul University Istanbul Faculty of Medicine, Department Orthopaedics and Traumatology, Istanbul, Turkey

[3] Erzurum City Hospital, Turkey

[4] Basaksehir Cam and Sakura City Hospital, Hand Surgery Clinic, Istanbul, Turkey

Aim: To analyse the effects of two different surgical approaches (volar and dorsal) in the surgical management of scaphoid nonunion on the functional kinematics of the wrist joint during activities of daily living. We considered that manual goniometric measurements would be insufficient to assess wrist kinematics.

Material and Methods: Between March 2020 and September 2021, a total of 18 male patients who were diagnosed with wrist scaphoid pseudoarthrosis (Scaphoid waist region) and were given an indication for surgical treatment in a single centre were divided into two prospective groups according to the approach type: the dorsal approach group (9 patients; mean age = 22 ± 4.6 years) and the volar approach. group (9 patients; mean age = 24 ± 3.6). All patients were individuals with unilateral scaphoid pseudoarthrosis who had surgical union and no neurological problems. Motion analysis system just before surgery and 12 months after surgery, one-handed tasks in daily living activities (using phone, touching perineum, and putting the wallet in back pocket) with Xsens Awinda system ™ [md1] Wrist kinematic analysis was performed. Data were obtained from operated and contralateral intact wrists, and within-group comparisons were made.

Results: In the telephone interview task, the mean wrist terminal extension value (19.7 ± 7°) of the dorsal group after the surgery approached the value of the intact wrist (21 ± 3°) (p = 0.8), while the radial-ulnar deviation range was less from the intact side (24° ± 9 °) (operated side = 17.8 ± 6°) (p = 0.03). Postoperative mean terminal extension value (26 ± 4°) was found to be lower in the volar group compared to the healthy side (38 ± 8°) (p = 0.0 [md2] 1). Flexion-extension range of motion of the dorsal group before surgery in touching the perineum (44 ± 11 °) and terminal flexion angle (29.4 ± 12 °), postoperative (23.4 ± 9 °) and significantly regressed from the healthy side (postoperative flexion-extension range of motion = 37 ± 10°) (p = 0.02 [md3]). The flexion-extension range of motion increased in the volar approach group (preoperative = 30 ± 17 ° and postoperatively = 38.5 ± 11°) but less than the healthy side (54 ± 15°) (p =

0.01 [md4]). The radial-ulnar deviation decreased in the postoperative volar group compared to the healthy side (postoperative = 16.8 ± 4°, intact side = 23 ± 3° p = 0.007) in the putting wallet in the back pocket movement. İn the dorsal group, it was observed that the flexion-extension range of motion increased and became similar to the healthy side (= 29.6 ± 8°, healthy = 33.2° ± 10) (p = 0.3). In the volar group, this situation was reversed and the flexion-extension range of motion was decreased and found to be less than the healthy side (preoperative = 25). ± 4 °, after = 22 ± 4°, intact = 31 ± 6°) (p = 0.01 [md5] [ASA6]).

Conclusion: In scaphoid nonunion surgery, with the volar approach, better functional results can be obtained in daily living activities than the dorsal approach in tasks that require flexion and radial deviation. This functional analysis can guide the choice of surgical treatment according to the patient's living standards, occupations, and expectations.

Keywords: Kinematics Analysis, Scaphoid pseudoarthrosis, Volar and Dorsal Approaches

OP-4

Outpatient Surgery for Benign Soft Tissue Tumors of Hand

Z.Mert Asfuroglu[1], Suayip Akinci[1]

[1]Department of Orthopaedics and Traumatology, Faculty of Medicine, Mersin University, Mersin, Turkey

Aim: The benign soft-tissue tumors (BSTT) of the hand are more common than malignant soft-tissue and benign bone equivalents. Surgical treatment of these tumors can be performed as outpatient protocol without need for general anesthesia. The main purpose of the present cross-sectional study is to assess the results of patients who underwent outpatient surgery with the diagnosis of the hand benign soft-tissue tumors.

Material and Methods: Histologically confirmed BSST of the hand were retrospectively screened from 2015 to 2020. Hospital digital management system was used to collect patient demographics and details of treatments.

Results: A total of 179 (96 females, 83 males) patients were included. The mean age was 41.6 (10-75, sd:15.1) years and the mean follow-up time was 47.4 (24-82, sd:11.1) months. The most frequently involved rays were second and third

(39/179; 21% and 39/179; 21%). The majority of tumors were located at the level of proximal phalanx (41/179; 22%). The most common diagnoses were giant-cell tumors (49/179; 27%) and ganglion cysts (30/179; 16%) respectively. The method of anesthesia was regional intravenous anesthesia (RIVA) in 89 patients and digital nerve block in 90 patients. Recurrence was observed in 11 (11/179; 6%) patients. It was observed that 7 patients with recurrence were operated with local digital block and 4 patients with RIVA. The most common diagnosis among these patients was hemangioma (4 patients).

Conclusion: Benign soft tissue tumors are common conditions in hand surgery practice. There is no significant difference in terms of recurrence between local digital block and RIVA. Recurrence rates are low in both local anesthesia methods.

Keywords: Hand, Soft tissue tumors, RIVA

OP-5

Suture-Button Fixation and Arthroscopic Dorsal Ligamento-Capsulodesis in Chronic Scapholunate Dissociation

I.Bulent Ozçelik[1], Ali Cavit[2]

[1] IST-EL Hand Surgery, Microsurgery and Rehabilitation Group, Gaziosmanpasa Private Hospital, Istanbul, Turkey

[2] Istanbul Haydarpasa Numune Training and Research Hospital, Hand & Upper Extremity Surgery Clinic, Istanbul, Turkey

Aim: We would like to present a new technique in the treatment of chronic reducible scapholunate (SL) dissociations: Suture-button (SB) fixation and arthroscopic dorsal ligamento-capsulodesis.

Material and Methods: The surgical indication for the present technique is a chronic, reducible, Geissler grade 4 SL ligament injury with an accompanying >2 mm SL dissociation. The patient is positioned in supine position under general or regional anesthesia. The arm is fixed on the table under nonsterile upper arm tourniquet and placed in the traction tower through Chinese fingertraps on the index and long fingers. A diagnostic arthroscopy is performed. Scapholunate interosseous ligament (SLIL) is visualized to confirm complete tear and checked to see if the remnants of the ligament are available for repair. Then, traction is

released, and the hand is placed on the operating table. The 3-4 portal incision is extended. And the suture-button system is positioned between the scaphoid and the triquetrum. Reduction is checked arthroscopically whether there is any dissociation or step. Finally, arthroscopic dorsal capsuloplasty is performed according to the technique described by Mathoulin et al.

Results: The present study demonstrates a new technique using SB device for reduction and fixation of SL diastasis combined with arthroscopic dorsal ligamento-capsulodesis. The SB system is positioned between the scaphoid and the triquetrum. The direction of the system prevents scaphoid flexion and maintains the continuity of the reduction. By combining arthroscopic dorsal ligamento-capsulodesis technique, the aim is to achieve biological healing during the stabilization process and thus to prevent SB system failures by reducing load transfer to the SB system.

Conclusion: The major advantages of this technique over others are straightforward technical application and a shorter operation time without a need for harvesting a tendon graft. The technique is performed through mini-incisions which reduce postoperative recovery time and rehabilitation period, and leads to faster restoration of function, overall decreasing the risk of joint stiffness. Furthermore, large bone tunnels which can lead to possible fractures are avoided.

Keywords: Suture-button, scapholunate dissociation, carpal instability, arthroscopic dorsal capsulodesis

OP-6

Comparison of One Tunnel Transosseous and Suture-Anchor Foveal Repairs for Arthroscopic Triangular Fibrocartilage Complex Tear

Barış Acar[1], Osman Orman[1], Ethem Ayhan Unkar[1], Ayşe Sencan[1], Kahraman Ozturk[2]

[1] University of Health Sciences Metin Sabancı Baltalimanı Bone Research and Training Hospital, Hand Surgery Clinic, Istanbul, Turkiye

[2] Acıbadem Fulya Hospital, Istanbul, Turkiye

Aim: Our aim in this study is to compare the clinical outcomes of suture-anchor technique and one tunnel transosseous technique

Material and Methods: Patients who underwent arthroscopic TFCC repair between 2012 and 2021 were analysed retrospectively. Eighty-three patients who were treated for TFCC tear were found. A total of 26 patients who had foveal TFCC repair with transosseous tunnel or suture anchor were identified. Patients' demographic data, duration of surgery, number of C-arm fluoroscopy shots, postoperative persisting symptoms, postoperative wrist range of motion (ROM), grip strength, Disabilities of Shoulder, Arm and Hand (DASH) Score, Visual Analogue Scale (VAS) score were analysed.

Patients included to the study were grouped into two. Group I consisted of 8 patients (4 female, 4 male) who were treated with one tunnel transosseous tunnel, and Group II consisted of 18 patients (6 female, 12 male) who were treated with suture anchor. The mean age of patients in Group I was 34.6±12.8 and was 35±11 in Group II. Duration of the surgical procedure in Group I and Group II was 66±15.2 minutes and 62.8±12.8 minutes, respectively and there was no significant difference between both groups (p=0.57). The mean number of C-arm fluoroscopy shots for Group I (6.9±01.9) was significantly higher than Group II (1.5±1). There was no significant difference between two groups based on postoperative wrist ROM (p= 0.23) and grip strength (p=0.828).

Results: The mean postoperative DASH score was 7.6±5,4 and VAS score for pain was 2.4±2 for Group I, and DASH score was 5.2±5.4 and VAS score for pain was 1.9±1.8 for Group II. DASH and VAS score for pain was similar between two groups (p=0.29 and p= 0.55, respectively).

Conclusion: Suture anchor and transosseous tunnel fixation methods for TFCC yield similar clinical outcomes. However, transosseous technic needed more fluoroscopy shots.

Keywords: TFCC, suture-anchor, tunnel transosseous technique

OP-7

Comparing the Outcomes of Open and Arthroscopic Wafer Procedure for the Treatment of Ulnar Impaction Syndrome

Osman Orman[1], Barıs Acar[1], Mehmet Baydar[1], Ethem Ayhan Unkar[1], Kahraman Ozturk[2]

[1] University of Health Sciences Metin Sabancı Baltalimanı Bone Research and Training Hospital, Hand Surgery Clinic, Istanbul, Turkiye

[2] Acıbadem Fulya Hospital, Istanbul, Turkiye

Aim: The aim of this study was to compare clinical and radiological outcomes of open and arthroscopic wafer procedure.

Material and Methods: Twenty-two patients who underwent wafer procedure for the treatment of ulnar impaction syndrome between January 2012 and December 2021 were reviewed. With similar indications, wafer procedure was performed in open fashion before 2015, and being performed arthroscopically since then.

Patients included to the study were grouped into two. Group I consisted of 8 patients (4 female, 4 male) whose treatment was performed in open fashion, and Group II consisted of 14 patients (13 female, 1 male) whose treatment was performed arthroscopically.

Patients' demographic data, duration of surgery, number of intraoperative C-arm fluoroscopy shots, postoperative range of motion (ROM), postoperative Visual Analogue Scale (VAS) score for pain, postoperative grip strength, postoperative Disabilities of Shoulder, Arm and Hand score (DASH) were evaluated. Postoperative ulnar variance was compared to preoperative ulnar variance on standard posteroanterior wrist x-rays. The mean age of patients in Group I was 50.3±14.1 and was 45.4±9.1 in Group II. Duration of the surgical procedure in Group I and Group II was 47.5±9.3 minutes and 55.4±10.6 minutes, respectively and there was no significant difference between both groups (p=0.09). The mean number of C-arm fluoroscopy shots for Group I (4.1 ±0.8) was significantly lower than Group II (6.1±2.1). There was no significant difference between two groups based on postoperative wrist ROM (p= 0.89) and grip strength (p=0.82).

Results: The mean postoperative DASH score was 8.4±5,3 and VAS score for pain was 3.6±2.2 for Group I, and DASH score was 4.6±3.6 and VAS score for pain was 2.1±1.7 for Group II. DASH and VAS score for pain was similar between two groups (p=0.05 and p= 0.1, respectively). In radiological assessment, we observed a mean of 4.8 mm reduction of ulnar variance in Group I, whereas mean of 0.9 mm reduction of ulnar variance was obtained in Group II (p=0.0001). The number of patients whose symptoms did not improve postoperatively were similar in both groups (p=0.16)

Conclusion: This study demonstrates that similar functional results can be obtained with open and arthroscopic wafer procedure. Open wafer procedure

significantly decreases the number of C-arm fluoroscopy shots and offers more reduction of ulnar variance. Nevertheless, reduction of ulnar variance did not affect clinical outcomes.

Keywords: Wafer procedure, arthroscopy, wrist, ulna, impaction, abutment

OP-8

Patient Reported Outcomes of Trapeziectomy & Abductor Pollicis Longus Tendon Suspensionplasty for First Carpometacarpal Osteoarthritis

Erdem Ozden[1]

[1] University of Health Sciences Gaziosmanpasa Research and Training Hospital, Istanbul, Turkiye

Aim: Osteoarthritis of the first carpometacarpal (CMC) joint is frequently seen after age of 60. There are several surgical techniques for the treatment of the situation. Ligament reconstruction and tendon interposition (LRTI) surgery is the mostly performed technique by harvesting the flexor carpi radialis tendon and may cause some decrease in the flexion power of the wrist. In this study we have retrospectively investigated the patient reported outcomes of trapeziectomy and abductor pollicis longus (APL) suspensionplasty which is performed by harvesting only a part of APL tendon.

Material and Methods: The medical records of patients with CMC joint osteoarthritis who underwent trapeziectomy and APL suspensionplasty between 2020-2021 were analyzed. 8 thumbs of 6 patients were eligible for the study. Preoperative and postoperative subjective outcomes were assessed using the Quick Disabilities of the Arm, Shoulder, and Hand (QDASH) scores and Visual Analog Scale (VAS). Grip and pinch strength, postoperative pain relief, and complications were also recorded.

Results: Minimum follow-up time was one year and the DASH scores were significantly improved for all of the 8 thumbs. All of the patients were satisfied with the procedure. The interphalangeal and metacarpophalangeal joint range of motion did not change as expected. Opposition and palmar abduction of the CMC joint were noted as the most improved motions of the thumb while the extension was nearly the same. The mean postoperative grip strength was 41 and the mean pinch strength was 10.2 kg. No complications were observed.

Conclusion: Trapeziectomy and APL suspensionplasty is an effective and safe procedure which doesn't require bone tunnels or harvesting FCR tendon.

Keywords: First Carpometacarpal Osteoarthritis, abductor pollicis longus, trapeziectomy, suspensionplasty

OP-9

Extensor Carpi Ulnaris "Turn Around" Ligamentoplasty for Distal Radioulnar Joint Instability

I. Bulent Ozcelik[1], Ali Cavit[2], Emre Agca[3]

[1] IST-EL Hand Surgery, Microsurgery and Rehabilitation Group, Gaziosmanpasa Private Hospital, Istanbul, Turkey

[2] Istanbul Haydarpasa Numune Training and Research Hospital, Hand and Upper Extremity Surgery Clinic, Istanbul, Turkey

[3] Tekirdag Namik Kemal University Faculty of Medicine, Department of Orthopaedics and Traumatology, Tekirdag, Turkey

Aim: We herein would like to present a new technique in the treatment of chronic DRUJ instability using hemi-ECU tendon graft without making bone tunnel.

Material and Methods: The present study demonstrates a new technique using hemi-extensor carpi ulnaris tendon graft without making bone tunnel in the treatment of chronic DRUJ instability. The tendon graft is passed through a soft tissue tunnel around the ulnar styloid and sutured back to itself with pulvertaft weave technique. The surgical indication for the present technique is chronic, symptomatic, gross DRUJ instability with TFCC foveal detachment. Furthermore, articular cartilage of DRUJ should be in a good condition and, sigmoid notch and ulnar styloid should be competent. The technique is contraindicated in case of advanced DRUJ arthrosis, ulnar styloid nonunion or chronic DRUJ instability with ulnar styloid atrophy. Moreover, any bony malalignment and sigmoid notch incongruity should be addressed before performing this reconstruction procedure.

Results: In this technique, the ECU tendon acts as a static stabilizer besides its dynamic stabilizer effect. The ECU tendon slip is turned around the ulnar styloid and sutured back onto itself, which provides direct stability on the distal ulna in

gross DRUJ instability with complete disruption of soft tissue stabilizers of DRUJ. Moreover, this technique also indirectly increases the stabilization of the DRUJ by stretching the superficial portion of the radioulnar ligaments and the remaining soft tissue stabilizers in cases with incomplete disruption of soft tissue stabilizers.

Conclusion: The present study demonstrates a new technique using a distally-based ECU tendon slip for stabilization of DRUJ. The major advantages of this technique are straightforward technical application and a shorter operation time without a need for bone tunnel. Thus, this technique avoids the complications related to bone tunnels such as fracture, expansion of the tunnel and loosening. This is especially important in osteoporotic patients. Furthermore, there is no need for any implant fixation.

Keywords: Distal radioulnar joint, instability, ligamentoplasty, reconstruction, extensor carpi ulnaris