scapula were represented as the rigid bodies – absolutely hard bodies with endless rigidity.

**Results:** The "clavicule-scapula" system rigidity, depending on the affected structures of:

a) the acromial-clavicular joint ligaments are unaffected, healthy condition is rigidity 19.5 N/mm

b) injury of lig. Conoideum - 15.1 N/mm

c) injury of lig. Trapezoideum - 16 N/mm

d) injury of lig. Acromioclaviculare superior - 13 N/mm

e) injury of lig. Acromioclaviculare inferior - 14.8 N/mm

f) injury of lig. Acromioclaviculare superior plus inferior - 8.5 N/  $\rm mm$ 

g) injury of lig. Conoideum plus lig. Trapezoideum - 11.6 N/mm Conclusion:

Loss of the rigidity in the system "clavicle-scapula" is more significant under the injuries of the lig. acromio-claviculare superior and inferior (8.5 N/mm) than under the injuries of the lig. conoideum and lig. trapezoideum (11.6 N/mm).

A widespread term "lig. Coracoclaviculare" presents significant difficulties, as it completely drops function of the lig. trapezoideum and lig. conoideum, thus, providing incorrect background for the operative interventions, aimed at restoring this region of the stabilizing acromial-clavicular joint complex.

#### P1310

#### POLYPLANAR LATERAL FIXATION OF SUPRACONDYLAR HUMERUS FRACTURES IN CHILDREN AND ADOLESCENTS

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**Objective:** To provide a comparative analysis of treatment outcomes in children and adolescents with supracondylar humeral fractures treated with cross- and multiplane lateral fixation.

Methods: The outcomes of 183 patients with supracondylar humerus fractures from 2019-2022 were reviewed in this retrospective analysis. Patients were aged 7.38±0.34 y. Clinical and instrumental examinations were performed when first diagnosed, treated and after fracture consolidation. The type of fracture was determined using the AO Pediatric Comprehensive Classification of Long-Bone Fractures (PCCF). Treatment outcome was assessed using the Mayo Clinic Elbow Performance Score (MEPS). The study included two groups: control (102 patients with crossed fixation) and main (73 patients with polyplane fixation). The comparative statistical analysis of the two groups, based on sex, age and type of bead, shows their reliability (p>0.005). A polyplane navigator was used to ensure fragment fixation in the main group. Results: The study found that the functional results of the treatment were unsatisfactory. In the control group, the unsatisfactory results were 6.1% for closed reduction with percutaneous fixation and external immobilization, and 8.8% for open reduction with pinning and external immobilization. In the main group, the unsatisfactory results were 5.1% for closed reduction with percutaneous fixation and external immobilization, and 6.8% for open

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reduction with pinning and external immobilization. Furthermore, the control group experienced iatrogenic ulnar nerve damage in 2.7% of cases, whereas this complication was absent in the main group of patients.

**Conclusion:** Polyplanar lateral fixation is a reliable method for fragment stabilization of supracondylar humeral fractures in children and adolescents. This method allows early post-trauma rehabilitation and improves functional outcomes. The possibility of iatrogenic ulnar nerve damage is also completely eliminated.

#### P1311

#### SECONDARY OSTEOPOROSIS IN PATIENT WITH NONSPECIFIC ULCERATIVE COLITIS: CASE REPORT V. Labashova<sup>1</sup>, Y. Dydyshka<sup>1</sup>, V. Vadzjanova<sup>1</sup>

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An important part of diagnostic and treatment of osteoporosis is the exclusion of secondary forms resulting from various pathological conditions and diseases. The success is largely determined by the awareness of doctors of various specialties and the possibility of long-term monitoring of the patient.

Case report: 59 years old female admitted for endocrine assessment due to revealed hypercalcemia. She suffered from lumbar bone pain, but did not pay much attention on it. She had no pathological fracture. Her height decreased by 2 cm for the last 10 y. Menopause lasted for 4 y. Initial chemistries showed serum calcium 2.9 mmol/l (2.2-2.55), phosphate 1.03 mmol/l, alkaline phosphatase 89 U/I, creatinine 68 umol/I. The rest of her laboratory results were unremarkable. During the examination ultrasound showed pathological zone near the right lobe of thyroid gland 9x5\*7 mm (parathyroid gland?) Later laboratory investigations confirmed raised serum calcium 2.82 mmol/L, increased PTH 24.82 pmol/l (1.45-10.41) and deficiency 25-hydroxyvitamin D -21 nmol/l. DXA showed L1-4 T-score=-2,6 SD, total hip T-score=-1.7SD. The thorough examination of medical history revealed nonspecific ulcerative colitis that patient defined as a remission for at least 7 y. She was initiated vitamin D replacements. Hyperparathyroidism was determined as a secondary, osteoporosis was categorized M81.8 - other osteoporosis without current pathological fracture. Follow up BMD 12 months lumbar spine BMD increased by 6.1% and total hip BMD increased by 5.2%. Serum calcium was 2.62 mmol/L, PTH 14.3 pmol/l (1.45-10.41) and 25-hydroxyvitamin D - 43 nmol/l.

Conclusion: This case report aims to detect the importance of the exclusion a secondary reasons of osteoporosis.

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