soleus muscle. Twenty healthy volunteers with an average age of 29 years underwent an ultrasound of the right PTF joint. The joint line spacing was visualized in 100% of the cases on the 3 sections. The anterior cross-section allowed anterior proximal tibiofibular ligament analysis in 100% of the cases (median length 15.7 mm (min-max: 12.3 – 23.4), median thickness 1.4 mm (min-max: 1-2.3). The coronal section allowed identification of the inferolateral geniculate and posterior tibial recurrent arteries in 90 and 85% of cases respectively, and the distal insertion of the fibular collateral ligament in 100% of cases. Posterior sectioning was more challenging and identification of the popliteal tendon, arcuate ligament and posterior proximal tibiofibular ligament was possible in 16, 7 and 2 patients respectively.

Conclusion: We performed a 2-step study: a cadaveric study followed by an ultrasound on healthy volunteer which allowed us to define 3 standardized scan of the PTF joint. These sections allow a thorough study of the PTF joint and the surrounding structures although study of the posterolateral corner ligaments remains challenging. We think that this scanning method can be integrated into daily clinical practice in rheumatology and in sports medicine.

Disclosure of Interests: None declared

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AB1136

THE DIAGNOSTIC VALUE OF SERUM KL-6 IN CONNECTIVE TISSUE DISEASE ASSOCIATED INTERSTITIAL LUNG DISEASE IN THE UYUR POPULATION OF CHINA.

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Background: Connective tissue diseases are a group of inflammatory, immune mediated disorders. Interstitial lung disease (ILD) is associated with significant morbidity and mortality. Currently, scientists are still looking for serum markers to diagnose interstitial lung disease. Although serum KL-6 level has been studied in ILD of various aetiologies and revealed to be an important serum marker for ILD, but differences in KL-6 expression related to ethnic and/or genetic variants may exist.

Objectives: To evaluate the diagnosis of the serum Krebs von den Lungen-6 (KL-6) for CTD-ILD in the Uygur population of China.

Methods: 117 Patients with CTD-ILD (CTD-ILD group) and 182 patients with CTD (CTD group) who visited the department of rheumatology and immunology of People's Hospital of Xinjiang Uygur Autonomous Region between January, 2015 and December, 2019 were included. Serum KL-6 levels were measured by chemiluminescent enzyme immunoassay kit.

Results: The significantly higher levels of KL-6 were determined in the RA-ILD group than RA group [569(287.5,984)U/ml vs 194(152,266.5)U/ml]($P<0.001$) (figure 1). The optimal cutoff value of serum KL-6 for diagnosis of RA-ILD was 345.5 U/ml, and the sensitivity and specificity were 71.8% and 90.1 %, respectively. Area Under the Curve (AUC) was 0.875. (figure 2)

Figure 1. Comparison of serum KL-6 concentrations in CTD-ILD group and CTD group.

Fig 2. Receiver-operating characteristic curve (ROC) of KL-6 for the diagnosis of CTD-ILD

Conclusion: The serum KL-6 is an important biomarker for the diagnosis of CTD-ILD and Serum KL-6 could be a clinically useful biomarker in screening CTD-ILD in the Uygur population of China.

References:

- [1] Woodhead F, Wells A U, Desai S R. Pulmonary Complications of Connective Tissue Diseases[J]. Clinics in Chest Medicine, 2008, 29(29):149–164.
- [2] Tanaka S, Hattori N, Ishikawa N, et al. Krebs von den Lungen-6 (KL-6) is a prognostic biomarker in patients with surgically resected nonsmall cell lung cancer. Int J Cancer 2012; 130:377–87.
- [3] Oguz E O, Kucuk Sahin O, Turgay M, et al. Association of serum KL-6 levels with interstitial lung disease in patients with connective tissue disease: a cross-sectional study. Clinical Rheumatology, 2016, 35(3):663–666.

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AB1137

CLASSIFICATION OF THE EARLY STAGE OF RAPIDLY DESTRUCTIVE COXOPATHY ACCORDING TO THE FEMORAL HEAD DESTRUCTION

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Background: Rapidly destructive coxopathy (RDC) is an unusual subset of osteoarthritis of the hip characterized by rapid chondrolysis with progressive loss of the joint space as the first manifestation of the disease. Because rapid progression of RDC makes it difficult to obtain sequential radiographs in its early stage, the process of disease progression in the early stage remains unclear. Although the pathogenesis of RDC is still unclarified, the potential causes of RDC include subchondral insufficiency fracture of the femoral head resulting from osteoporosis, pelvic posterior inclination in RDC as a mechanical factor, and increased serum levels of matrix metalloproteinase (MMP)-3 as a biological factor.

Objectives: This study aimed to differentiate the process of disease progression in the early stage of RDC and provide its new classification system.

Methods: This monocentric retrospective study included 42 female patients who met the criteria of RPOH, chondrolysis >2 mm during 12 months from the onset of hip pain based on a series of radiographs and computed tomography (CT). This study also included 9 female patients with osteoarthritis secondary to developmental dysplasia of the hip (DDH), who demonstrated chondrolysis >2 mm during 12 months from the onset of hip pain. Cortical thickness index (CTI) correlated with bone mineral density of the hip, pelvic tilt, and serum concentrations of matrix metalloproteinase (MMP)-3 were analyzed.

Results: RDC were classified into two types based on the absence (type 1, n=17) and presence (type 2, n=25) of subsequent femoral head destruction shown by CT within 12 months after the onset of hip pain. MMP-3 significantly