with respect to the number of patients with kinesiophobia and to mean scores of pain intensity, fatigue, HAQ and BDI (p<0,05-<0,001). Patients with RA had higher rates of kinesiophobia than patients with AS and healthy controls (p=0.001, p=0,001). Patients with RA had worser scores than patients with AS and healthy controls. Patients with AS had worser scores than healthy controls. In patients with RA and AS, kinesiophobia is associated with pain severity, fatigue, emotional status and QoL.

Conclusions: In our study, patients with RA and AS had higher rates of kinesiophobia. We found that kinesiophobia was related with pain severity, fatigue, depression, disease activity and QoL of the patients. The QoL can be improved through controlling kinesiophobia by reducing pain, depression and fatigue.

Disclosure of Interest: None declared

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AB0256 SERUM AND SYNOVIAL KYNURENIC ACID CONCENTRATION AND ITS CORRELATION WITH DISEASE ACTIVITY IN PATIENTS WITH RHEUMATOID ARTHRITIS: CLINICAL AND ULTRASONOGRAPHIC STUDY

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease. kynurenic acid has anti-inflammatory effects, because it is the most important agonist of the orphan G-protein-coupled receptor (GPR35) which expressed on various types of cells associated with the immune system. Stimulation of these receptors by kynurenic acid lead to reduction in the synthesis of proinflammatory cytokines, nitric oxide, and reactive oxygen species (1).

Objectives: Detection and quantification of kynurenic acid in serum and synovial fluid obtained from the affected joints in patients with rheumatoid arthritis and its relation to different clinical aspects of disease activity and signs of synovitis and synovial hyperplasia detected by musculoskeletal diagnostic ultrasound.

Methods: Thirty RA patients diagnosed according to ACR and EULAR revised criteria and thirty patients of idiopathic knee osteoarthritis as a control group were enrolled in the study. These patients were collected from outpatient clinic of rheumatology department Benha Teaching Hospital. Kynurenic acid was assessed in Serum samples from all patients and controls coupled synovial fluid samples aspirated from knee joint of all RA patients and fourteen OA patients after musculoskeletal ultrasonographic examination of these joints.

Results: Serum and synovial level of kynurenic acid was assessed in the studied groups. Comparison between RA and OA patients as regard serum kynurenic acid showed no differences where it's level was *29.80±13.86 pg/ml in RA versus 30.98±11.03 pg/ml in OA patients)*, while synovial kynurenic acid was significantly lower in RA 16.38±6.45 pg/ml than in OA patients 26.22±2.99 pg/ml ($p<0.001$). kynurenic acid was significantly lower in synovial fluid (16.38±6.45 pg/ml) than in serum (29.80±13.86 pg/ml) in RA group of patients ($p<0.001$). Comparison among different grades of synovitis detected by grey scale U/S and by Doppler signals in RA patients as regard synovial kynurenic acid showed that it was significantly lower in higher grades of synovitis ($P<0.001$). Synovial kynurenic acid level was negatively correlated with grades of synovitis and Doppler signals ($p<0.001$).

Conclusions: The negative correlation between Kynurenic acid concentration in the synovial fluid and both the synovial thickness detected by ultrasonography and the hyperaemia of synovial tissues as represented by the Doppler activity, may support its use as a local marker of the two faces of rheumatoid arthritis (chronicity and activity) at the joint level.

To the best of our knowledge, this is the first study that gives correlation between the serum and synovial levels of kynurenic acid concentrations and the grade of synovitis detected by grey scale and Doppler ultrasonography.

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AB0257 SCREENING OF DIFFERENTIALLY EXPRESSED SERUM PROTEINS FOR RHEUMATOID ARTHRITIS BY SURFACE-ENHANCED LASER DESORPTION/INIONATION-TIME OF FLIGHT-MASS SPECTRA

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Background: RA is a chronic inflammatory rheumatic disease, and early diagnosis and treatment can improve prognosis[1].Surface-enhanced laser parsing ionization/time of flight mass spectrometry (SELDI-TOF-MS) combining a protein chip and mass spectrometry technology own the advantages of low dosage of samples, direct point sample detection and high sensitivity.

Objectives: SELDI used to profile and compare the proteomes in serum samples of RA patients including complicated with Sjogren's syndrome (SS), interstitial lung disease (ILD). Using Biomarker Wizard software and Biomarker Pattern Software established diagnostic model, and calculate sensitivity and specificity,which can simplify clinical procedures, save medical costs and explore the pathogenesis.

Methods: Using the Biomarker Wizard and Biomarker Pattern software to establish the diagnosis prediction model to predict RA disease progression between the following groups, including simple RA patients (n=44) and RA-SS patients (n=18), RA patients (n=44) and RA-ILD (n=22), RA patients (n=44) and RA-ONFH (n=6). Also 96 RA patients and 77 healthy control, which were randomly allocated to the training set (83 RA patients and 56 healthy controls) and test set (14 RA patients and 20 healthy controls)to develop and verify a pattern by means of decision treealgorithm.

Using the Biomarker Wizard and Biomarker Pattern software to establish the diagnosis prediction model to predict RA disease progression between the following groups, including simple RA patients (n=44) and RA-SS patients (n=18), RA patients (n=44) and RA-ILD (n=22). Also 96 RA patients and 77 healthy control, which were randomly allocated to the training set (83 RA patients and 56 healthy controls) and test set (14 RA patients and 20 healthy controls)to develop and verify a pattern by means of decision treealgorithm.

Results: 1. Comparison of RA patients and healthy controls: there are 22 up-regulated expression in RA, 36 down-regulated. The diagnostic model of M/Z3448.857,4716.712,8214.285 and 10645. The sensitivity and specificity is 91.566% and 92.857%, the area under the ROC curve was 0.937, to verify the diagnosis model, we get a sensitivity of 100% and a specificity of 95%. 2. Comparison of the simple RA and RA -ILD. The diagnostic model of M/Z10645.1, M/Z12595.86. The sensitivity and specificity is 86.4% and 84.1% and the area under the ROC curve was 0.856.3. Comparison of the simple RA and RA -SS: The diagnostic model of M/Z6635.623, M/Z33897.72. The sensitivity and specificity is 77.8% and 79.5% and the area under the ROC curve was 0.794.

Conclusions: The serum protein fingerprinting by SELDI-TOF-MS could identify new biomarkers in RA. The biomarkers may play an important role in pathogenesis of RA. We could diagnose RA in early stage, predict disease progression and determine disease activity by these biomarkers.

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AB0258 AGE AND QUALITY OF LIFE AMONG RHEUMATOID ARTHRITIS PATIENTS TREATED WITH BIOLOGIC AGENTS

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Background: Rheumatoid arthritis (RA) is a common autoimmune disease of unknown etiology which is characterized by symmetric, chronic inflammatory, peripheral polyarthritis. If it is untreated or unresponsive to therapy, inflammation and joint destruction lead to loss of physical function, inability to carry out daily tasks of living.

In addition to problems related to pain and inflammation, patients with RA are also affected by psychological problems such as anxiety and depression.

It has been a while since, the biologic agents have let RA patients to early remmision, and improved their Quality of life (QOL).

A few studies show relevance between age and QOL among RA patients. Lambert et al. found that age was positively correlated with pain, indicating that increasing age made the situation worse.

Objectives: This study aimed to assess the relationship between age and QOL of RA patients who has been treated with biologic agents.

Methods: 149 RA patients who treated with biologic agents at Showa University Hospital, Showa University Northern Yokohama Hospital and Showa University Koto Toyosu Hospital were recruited from 2005 to 2016. This study design was retrospective cohort study. Loss to follow-up was eliminated. The patients were divided into two groups, whose age was 65 years old and over (elderly) and under 65 (adults). The primary outcome was the change of QOL in 6months'. QOL was measure using SF-36, and we use physical component scale (PCS) and mental component scale (MCS). Logistic regression analysis was performed.

Results: Among 149 RA patients, the mean age was 57 years old and 85.9% was female. 92 out of 149 patients (61.7%) were adult group and 57 (38.3%) were elderly group. Adjusted with sex, disease duration, DAS28-ESR, HAQ, and with or without complications which are interstitial lung disease, diabetes mellitus, and chronic kidney disease, there was no significant difference in change of MCS in 6 months'. But those of PCS was significantly higher in adult's group (regression coefficients -7.25; 95% Confidence Interval (CI) -11.7 to -2.77; $p=0.0018$).

Conclusions: There is a possibility that, younger patient who suffers with RA could achieve better quality of life than those of elderly patients after treatment with biologic agents.