HAND FUNCTION IS IMPAIRED IN PATIENTS WITH INCREASED FIBRINOGEN TO ALBUMIN RATIO IN ANKYLOSING SPONDYLITIS: CORRELATION WITH DISEASE ACTIVITY

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Methods: Patient diagnosed with RA (ACR/EULAR 2010), PsA (CASPAR) and Pso and 54 healthy individuals were included in the study after written informed consent.(Maximal isometric grip strength (kPA) was measured with a hand dynamometer (Lafayette Instrument, Lafayette, IN, USA) as the highest value out of three measurements. Hand function was determined by way of the Moberg Picking-Up Test (MUP).)

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AB1326 INCREASED FIBRINOGEN TO ALBUMIN RATIO IN ANKYLOSING SPONDYLITIS: CORRELATION WITH DISEASE ACTIVITY

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Background: Fibrinogen to albumin ratio (FAR) has emerged as a new effective biomarker which can reflect the severity of chronic inflammation. However, none of study has focused on the role of FAR in ankylosing spondylitis (AS).

Objectives: The study aimed to investigate the association between FAR and the disease activity of AS.

Methods: The retrospective study included 117 AS patients and 165 age- and gender-matched healthy controls. AS patients were divided into remission group (Bath Ankylosing Spondylitis Disease Activity Index
(BASDAI < 4) and active group (BASDAI ≥ 4). Remission group included 60 patients and active group included 57 patients. Fibrinogen, albumin, FAR, C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) were collected. Relationships between FAR and BASDAI as well as other biochemical indexes were assessed by the Spearman’s correlations analysis. Receiver operation characteristic (ROC) curves were performed to discriminate AS patients from healthy subjects and active group from remission group. Furthermore, binary logistic regression analysis was conducted to evaluate the risk factors of AS disease activity.

Results: FAR, fibrinogen, CRP and ESR were higher in AS patients compared with healthy controls (P < 0.05), while albumin was lower (P < 0.05). ROC results showed that area under curve (AUC) of FAR (0.818, 95%CI: 0.760 - 0.836) and albumin (0.841, 95%CI: 0.788 - 0.894) were higher than fibrinogen (0.772, 95%CI: 0.707-0.836), CRP (0.677, 95%CI: 0.598 - 0.756) and ESR (0.784, 95%CI: 0.721 - 0.847). Positive correlations were found between FAR and BASDAI (r = 0.488, P < 0.001), CRP (r = 0.858, P < 0.001) and ESR (r = 0.817, P < 0.001). Besides, FAR, fibrinogen, CRP and ESR in active group were higher than remission group (P < 0.05), while albumin was lower (P < 0.05). ROC results showed that AUC of FAR (0.691, 95%CI: 0.596-0.786) was higher than fibrinogen (0.676, 95%CI: 0.577 - 0.776), albumin (0.665, 95%CI: 0.567 - 0.763), CRP (0.646, 95%CI: 0.545 - 0.746) and ESR (0.667, 95%CI: 0.569 - 0.766). FAR was a risk factor of the disease activity in AS patients (OR: 1.354, 95%CI: 1.067 - 1.718, P = 0.013).

Conclusion: FAR was increased in AS patients compared with healthy controls and significantly correlated with the disease activity of AS. FAR might be a potential useful inflammatory biomarker to monitor disease activity of AS patients.

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