Hand function is impaired in patients with increased fibrinogen to albumin ratio in inflammatory-rheumatic diseases.  

**Objectives:**  

The study aimed to investigate the association between FAR and inflammatory-rheumatic diseases (RA, PsA, Pso). 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).  

**Background:**  

Inflammatory-rheumatic diseases affect hand joints with swelling and pain, leading to joint destruction. Even patients with psoriasis only may suffer subclinical inflammation in the hand joints, leading to changes of bone [1]. Finger joint involvement is different for rheumatoid arthritis (RA), psoriatic arthritis (PsA) and psoriasis (Pso). Further, it was surprising that hand function was reduced in Pso patients without arthritic correlate compared to healthy subjects. This suggests that hand function may provide a potential parameter for discriminating Pso patients at risk for subclinical joint involvement.  

**Results:**  

Overall, RA patients showed significantly lower grip strength compared to PsA and Pso patients as well as to the control group, whereas all three patient groups performed worse in the MPUT compared to the control cohort. This suggests that grip strength may be preserved longer than hand function in patients with inflammatory rheumatic disease. For this study, we did not find that hand function was different for the dominant and the affected hand and are independent of age differences between groups.  

**Conclusion:**  

Overall, RA patients showed significantly lower grip strength compared to PsA and Pso patients as well as to the control group, whereas all three patient groups performed worse in the MPUT compared to the control cohort. This suggests that grip strength may be preserved longer than hand function in patients with inflammatory rheumatic disease. Further, it was surprising that hand function was reduced in Pso patients without arthritic correlate compared to healthy subjects. This suggests that hand function may provide a potential parameter for discriminating Pso patients at risk for subclinical joint involvement.  

**Disclosure of Interests:** None declared.  

**REFERENCES**  


**AB1325**  

**HAND FUNCTION IS IMPAIRED IN PATIENTS WITH RHEUMATOID ARTHRITIS, PSORIATIC ARTHRITIS AND PSORIASIS COMPARED TO HEALTHY CONTROLS**  

Anna-Maria Liphardt1,2, Sonja Liehr1, Eva Manger1, Lisa Bieniek1, Asm Kleyer1, David Simon1, Koray Tasclar1, Michael Sticherling1, Jürgen Rech1, Georg Schett1, Axel Hueber1,4, Friedrich-Alexander-University Erlangen-Nuremberg, University Hospital Erlangen, Internal Medicine 3 – Rheumatology and Immunology, Erlangen, Germany;2German Sport University Cologne (DSHS Köln), Biomechanics and Orthopaedics, Köln, Germany;4Friedrich-Alexander-University Erlangen-Nurnberg, Dematology, Erlangen, Germany;5Sozialstiftung Bamberg, Rheumatology, Bamberg, Germany  

**Background:**  

Inflammatory-rheumatic diseases affect hand joints with swelling and pain, leading to joint destruction. Even patients with psoriasis only may suffer subclinical inflammation in the hand joints, leading to changes of bone [1]. Finger joint involvement is different for rheumatoid arthritis (RA), psoriatic arthritis (PsA) and psoriasis (Pso) but hand function in these patients is not well characterized.  

**Objectives:**  

To quantify and compare grip strength and hand function in patients with RA, PsA and Pso and to relate these outcomes to disease activity.  

**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 (MPT) and the fastest (s) of two measurements was used. Disease activity was calculated as DAS28_ESR and TJC/SJC 78/76 was recorded. One-way Variance of Analysis (ANOVA), factorial ANOVA and Games-Howell post-hoc testing was performed (p<0.05).  

**Results:**  

101 RA (63 f; 38 m; age: 59.1±13.2 yrs), 92 PsA (48 f; 44 m; age: 54.8±15 yrs) and 51 Pso patients (19 f; 32 m; age: 47.3±14.1 yrs), as well as 54 healthy control subjects (30 f 24 m; age: 54.6±16.5 yrs) participated in the study. Disease duration (yrs) was not different between groups (RA: 11.0±3.1, PsA: 9.1±7.5, Pso: 12.5±11.7; p=0.156) but Pso patients in our cohort were younger compared to RA and PsA patients. Mean DAS28_ESR was < 3.2 for all patient groups with control subjects (DAS28 1.6 ± 0.7) having lower scores compared to all patient groups and Pso patients presenting with lower DAS28 (2.3 ±1.3) compared to RA (3.0±1.3) and PsA (2.9±1.3). While TJC was higher for all patients compared to controls (RA: 5.2±6.8, PsA: 5.9±8.1; Pso: 3.2±6.4; CON: 0.5±1.4; p<0.001), SJC was higher for RA and PsA compared to CON (RA: 0.7±1.0, PsA: 0.9±2.2; PsA: 0.5±1.3; CON: 0.5±1.4; p<0.001). Grip strength of the dominant and/or affected hand of RA patients was lower compared to PsA and CON and Figure 1A. In contrast to this, hand function of the same hand in all tested patient groups was reduced compared to CON (Figure 1B). The results for grip strength and hand function were not different for the dominant and the affected hand and are independent of age differences between groups.  

**Conclusion:**  

Overall, RA patients showed significantly lower grip strength compared to PsA and Pso patients as well as to the control group, whereas all three patient groups performed worse in the MPUT compared to the control cohort. This suggests that grip strength may be preserved longer than hand function in patients with inflammatory rheumatic disease. Further, it was surprising that hand function was reduced in Pso patients without arthritic correlate compared to healthy subjects. This suggests that hand function may provide a potential parameter for discriminating Pso patients at risk for subclinical joint involvement.  

This study was funded by research support from Novartis Pharma GmbH.

**REFERENCES**  