scores only decreased significantly at the forearms and fingers of SSc patients. The reduction of mRSS at the fingers did not correspond to improvements in SWV. Shear wave velocity (SWV) measurements correlated with mRSS both at baseline (rs=0.56; p<0.0001) and at follow-up (rs=0.74; p<0.0001).

**Conclusion:** Although preliminary, this study provides the first evidence suggesting that 1. SWV of the skin is more sensitive to change over time than mRSS; 2. Skin stiffness reduces significantly over time in normal controls, and 3. Normal skin ageing may contribute to the overall decrease of SWV with time in SSC. Our results highlight the discriminant ability of SWV in detecting subtle skin changes not identified by mRSS. SWV may offer a significant improvement in the evaluation of skin stiffness and may provide relevant insights into the biology of healthy and scleroderma skin. Studies including a larger number of patients in different phases of skin involvement and data on normal reference values of these ultrasound measurements are needed to reach a definitive validation.

**REFERENCES**


**Disclosure of Interests:** None declared


**SAT0642 PROTEIN BIOMARKERS TO DIFFERENTIATE PSORIATIC ARTHRITIS FROM PSORIASIS**

**Conor Magee**1-2, Ylont Pu3, Anna Kwasniski4, Angela MC Ardle5, Belinda Hernandez2, Flora Farkas2, Natsumi Ikumi1, Agnes Szentesi4, Loai Shakerdi1, Phil Gallagher1, Measuring Outcome in Psoriatic Arthritis (MOPsA) Group.

1University of East Anglia, Norwich Medical School, Norwich, United Kingdom; 2Queen’s University Belfast, Belfast, United Kingdom; 3St. Vincent’s University Hospital, Dublin, The Conway Institute, Dublin, Ireland; 4St. Vincent’s University Hospital, Dublin, Trinity College Dublin, School of Medical Gerontology, Dublin, Ireland; 5St. Vincent’s University Hospital, Dermatology, Dublin, Ireland

**Background:** The BioMarkers of COMorbidities (BIOCOM) in Psoriasis (Pso) study is a longitudinal study in which we aim to identify clinical, genetic and protein biomarker features associated with the development of comorbidities, notably psoriatic arthritis (PsA), in patients with psoriasis (Pso). PsA usually precedes the development of PsA with an average interval of 10 years. Thus, patients with Pso are an ideal group in which to study the early events in the evolution to PsA.

**Objectives:** To use a targeted proteomics approach to identify a serum protein or panel of proteins which could predict the development of PsA in patients with Pso. As a first step, we initially sought to identify serum proteins capable of discriminating between patients with Pso only and patients with established PsA.

**Methods:** 30 patients with Pso and 30 patients with established PsA were selected from the BIOCOM-Pso database. Serum samples from these patients, taken at their initial assessment, were digested using an established in-house standard operating protocol (SOP). Once digested, a targeted proteomics approach using liquid chromatography (LC) and a multiple reaction monitoring (MRM) assay called PAPRICA was used to measure candidate biomarker proteins. These 206 proteins (423 peptides) were previously identified as being potential biomarkers in a number of different inflammatory rheumatological conditions.

**Results:** The demographics of the 2 patient groups are shown in Table 1.