Conclusion: Sleep disorders are common in patients with AS and these disorders are found to be closely associated with pain, disease activity, anxiety, depression and poor quality of life. Restless leg syndrome (RLS) is also common in patients with AS and it is not always associated with bad sleep quality. RLS was determined in 32.4% (24/74) of patients whose sleep quality is good according to the Pittsburg Sleep Quality Index. So to improve the quality of life in AS, presence of RLS must be evaluated along with the sleep quality.

References:

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Psoriatic arthritis

PROFILING OF THE IMMUNE COMPARTMENT IN THE TISSUE ENVIRONMENT OF PSORIATIC ARTHRITIS USING RNASEQ

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Background: Psoriasis is a chronic inflammatory disease of the skin with a reported prevalence of 0.09-11.4% of the population (1). 1 in 4 psoriasis patients also have psoriatic arthritis (PsA) (2), with additional joint involvement that can be associated with significant morbidity. Despite its relative commonness, the aetiology of psoriasis is not well understood, and there is no cure for this disease. Additionally, up to 30% of PsA patients with active disease are recalcitrant to treatment. Thus it remains a prerogative to understand the immune mechanisms contributing to the development of the disease in order to inform strategies for novel therapies.

Objectives: Our aim was to identify perturbations in local tissue immune networks that could contribute to the pathology of psoriasis and psoriatic arthritis. We hypothesise that psoriasis is driven by a disrupted tissue microenvironment, which then provides cues to a susceptible peripheral immune system to drive pathology. Thus as the first part of our study, we investigated the transcriptional profiles of normal and lesional skin.

Methods: Skin punch biopsies were obtained from both lesional and morphological normal skin of 4 PsA patients with active disease. CD45+ cells were isolated using magnetic enrichment for RNA purification and subsequent RNaseq. Differently expressed genes (DEG) were identified and pathway analysis performed using the integrated Differential Expression and Pathway (iDEP) analysis tool. Gene set enrichment analysis was performed using GSEA.

Results: Transcriptomic analyses of skin revealed that lesional skin, compared to non-lesional sites, was enhanced for expression of genes associated with immune processes (including genes such as IL17A, FCN1, and CTLA4) anti-microbial responses (such as DEF4BA and S100A8) and immune cell chemotaxis (notably CXCL13 and SELPLG), suggesting a possible inflammatory response to skin microbiod. Interestingly, lesional skin showed a deficiency in expression of genes associated with RNA metabolic processes (including AARS, YARS, and other aminocarboxy RNA synthetases), suggesting a possible defect in protein translation. Similarly, pathway analysis revealed an enrichment in humoral immune response pathways in PsA lesional skin, and a comparative deficiency in RNA metabolic pathways.

Conclusion: Our transcriptional approach provides a comprehensive overview of localised immunity in psoriasis and predicts intimate interactions with the peripheral immune system. Further studies are ongoing to uncover cell types involved, as well as parallels at other disease sites (joints). These findings will facilitate the identification of novel targets for treatment of PsA.

Disclosure of Interests: None declared

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ASSOCIATION BETWEEN PERITENON EXTENSOR TENDON INFLAMMATION AND ENTHESITIS IN TUNISIAN PATIENTS WITH PSORIATIC ARTHRITIS

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Background: Ultrasoundography (US) is an useful tool in assessing psoriatic arthritis (PsA) by detecting synovitis and Power Doppler (PD) activity. Enthesitis is well known as a cornerstone of PsA pathophysiology. Recently, more specific US features of PsA have emerged, such as peritenon extensor tendon inflammation (PTI) and edema of soft tissues, with value in the positive diagnosis of the disease.

Objectives: The aim of our study was to determine the association between PTI, edema and enthesis in PsA patients.

Methods: Patients with peripheral PsA responding to the Classification Criteria for Psoriatic Arthritis (CASPAR) were included: US examination was performed by an experimented rheumatologist blinded to clinical data using a machine type Esato MyLab 60 with a linear probe of 6-18 MHz. Wrists, metacarpo-phalangeal (MCP), proximal inter-phalangeal (PIP) and distal inter-phalangeal (DIP) joints were assessed in mode B and PD. PTI was defined as a hypoechoic image surrounding the digitorum tendons with or without PD signal in the dorsal aspect of MCP joints. Soft tissue edema was defined as a diffuse enlargement of soft tissue around the flexor tendon, with an increased PD signal, from finger pad to metacarpophalangeal (MCP), proximal inter-phalangeal (PIP) and distal inter-phalangeal (DIP) joints.

Results: A total of 600 joints were assessed in 20 PsA patients, 8 men and 12 women, with a mean age of 55 ± 11 [33-77] years old. The mean disease duration was of 10±8 [1-34] years. Clinically, 25% of joints were tender and 6% were swollen. The mean DAPSA (Disease Activity in Psoriatic Arthritis) score was of 32±7 [4-112].

On US examination, synovitis was detected in 54 joints (9%), with PD signal in 53% of them. The sites of synovitis by decreasing order of frequency were: MCP, PIP, DIP, MCP, PIP, DIP, MCP, PIP, DIP, MCP, PIP, DIP.

Enthesitis was noted in 59 DIP joints (37%). The elementary lesions recorded were: 14% insertions, 11% hypoechoic tendon in 12% of cases. However, no PD signal at the enthesis was found.

PTI and soft tissue edema had no association with enthesitis (p=0.399 and p=0.374 respectively). PD synovitis showed a significant association with enthesis (p=0.034), but not with PTI and soft tissue edema. GS synovitis had no association with any of these lesions.

Conclusion: Our study found that soft tissue edema not to be associated with enthesis as opposed to PD synovitis. A larger sample size is necessary to support the role of PTI as an enthesis related lesion in PsA patients.

Disclosure of Interests: None declared

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