

**THU0492 (2020)**

## **MAGNETIC RESONANCE IMAGING OF THE SACROILIAC JOINTS IN PATIENTS WITH HYPERMOBILITY: A RETROSPECTIVE COHORT STUDY**

**A. Jones<sup>1</sup>, C. Ciurtin<sup>2</sup>, H. Kazkaz<sup>2</sup>, M. Hall-Craggs<sup>3</sup>**

<sup>1</sup>Royal Surrey County Hospital, Guildford, United Kingdom

<sup>2</sup>University College Hospital, London, United Kingdom

<sup>3</sup>University College London, London, United Kingdom

**Background:** The incidence of inflammatory and structural lesions on magnetic resonance imaging of sacroiliac joints (MRI SIJs) in patients with hypermobility related disorders has not been fully investigated. Hypermobile patients are more susceptible to pelvic instability and biomechanical stress of the SIJs, leading to MRI SIJ changes similar to those occurring in spondyloarthritis (SpA). Patients with hypermobility and suspected SpA pose a unique challenge owing to the high prevalence of back pain in the hypermobility cohort and the absence of spinal restriction on clinical examination.

**Objectives:** In this study, we aim to investigate the incidence of MRI SIJ lesions in patients with hypermobility.

**Methods:** We performed a retrospective study of all patients with a confirmed diagnosis of hypermobility related disorders (including hypermobility syndrome, hypermobility spectrum disorders and Ehlers-Danlos Syndromes) referred for an MRI lumbar spine and SIJ between 2011 and 2019 to investigate long-standing back pain. MRIs were examined by a musculoskeletal (MSK) radiologist with more than 25 years of experience, who was blinded to the clinical outcome of the patients. MRI SIJs were assessed for the presence of bone marrow oedema, subchondral sclerosis, erosion, fatty change, enthesitis, ankylosis, joint fluid and capsulitis.

**Results:** 51 patients with confirmed hypermobility related disorders were referred for MRI SIJ and lumbar spine between 2011 and 2019. 3 patients demonstrated clinical features in keeping with a diagnosis of SpA and were excluded from the study. 15/48 (31.3%) of patients with hypermobility and back pain (but no clinical picture of SpA) were found to have inflammatory and/or structural lesions on MRI SIJ. The most frequent lesions were small foci of bone marrow oedema (16.6%) followed by subchondral sclerosis (12.5%) and fatty change (10.4%). The incidence of erosions was 4.2%.

**Conclusion:** There is a relatively high incidence of inflammatory and structural lesions on MRI SIJ of patients with hypermobility. The presence of hypermobility should be taken into consideration when interpreting MRI changes in patients with suspected SpA. Further research into long-term outcomes of MRI SIJs in patients with hypermobility and back pain is required to establish the clinical significance of these findings.

**Disclosure of Interests :** Alexis Jones: None declared, Coziana Ciurtin Grant/research support from: Pfizer, Consultant of: Roche, Modern Biosciences, Hanadi Kazkaz: None declared, Margaret Hall-Craggs: None declared

**Citation:** Ann Rheum Dis, volume 79, supplement 1, year 2020, page 478

**Session:** Back pain, mechanical musculoskeletal problems, local soft tissue disorders (*Poster Presentations*)