

Browser's Notes

Published online: 22 April 2019
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Age- and sex-dependent frequency of fat metaplasia and other structural changes of the sacroiliac joints in patients without axial spondyloarthritis: a retrospective, cross-sectional MRI study

Ziegeler K, et al.
J Rheumatol. (2018); 45(7):915–21

Fat metaplasia around the sacroiliac (SI) joints is recognized as a characteristic MR imaging sign of inflammatory sacroiliitis. To determine the prevalence of MR findings suggestive of sacroiliitis in non-rheumatologic subjects imaged for other reasons, axial T1-weighted MR images of 454 patients (51% male) were retrospectively scored semiquantitatively for extent of peri-SI fat metaplasia, sclerosis, osteophytes, and joint space erosions/ankylosis. The analysis also compared patient subgroups divided by gender and age. Considered confounders included radiation therapy (11% of population), immunosuppression (49%), hematological diseases (<1%) and osteoporosis (5%). Below age 45 years, roughly half of the subjects (50.6%) showed SI fat metaplasia, most with focal or patchy areas. The majority (94.4%) of patients over 75 years of age had SI fat metaplasia, usually to a greater extent than the younger groups. In this >75 year old group, sclerosis, erosion and osteophytes were much less common than fat metaplasia, overall 14%, 3%, and 37% respectively, and even less common below the age of 45 years, 10%, 0.6%, and 20% respectively. Osteophytes were significantly more common in men (48.5%) than women (24.9%), conversely, there were no significant prevalence differences for sclerosis (11.2% men, 16.3% women) or erosions (1.3% men, 4.1% women). While fat metaplasia was more common in subjects with a history of prior radiation therapy, patients with osteoporosis had lower fat metaplasia scores, and there was no apparent effect from immunosuppression. Although the study did not evaluate a normal population and the inclusion of patients with prior radiation therapy may have slightly overestimated the prevalence of fat metaplasia, the authors warn against relying on fat metaplasia for the diagnosis of

axial spondyloarthropathy. Erosions are a more specific sign of inflammatory sacroiliitis as they are uncommon in patients without rheumatological diseases.

Arthroscopic hip surgery compared with physiotherapy and activity modification for the treatment of symptomatic femoroacetabular impingement: multicentre randomised controlled trial

Palmer AJR, et al.
BMJ. (2019); 364:l185

The femoroacetabular impingement trial (FAIT) is a pragmatic blinded randomized controlled study comparing patients with femoroacetabular impingement (FAI) diagnosed by clinical parameters and treated with either physical therapy (PT, $n = 110$) or arthroscopic surgery (AS, $n = 112$). This article reports the 6 month post-treatment results for 133 of the subjects (86 PT, 47 AS) based on the primary outcome measure, the activity of daily living subscale of the hip outcome score (HOS-ADL), several other clinical assessments, and patient reported outcomes. Patients were recruited from referrals to orthopedic surgeons at any of 7 British National Health Service sites; those with hip dysplasia or osteoarthritis (OA) worse than Kellgren-Lawrence (K-L) grade 1 were excluded. Demographics for the groups were similar with mean age of 36 years (range 18–60), body mass index 26.2, and 66% women. 94% of patients had cam type FAI, 6% mixed cam and pincer with only 1 patient having pure pincer-type FAI. At 6 months post-treatment, the AS group showed a 10 point higher HOS-ADL score (9 points considered the minimum clinically important difference) than the PT group ($p = 0.001$). The HOS-ADL scores were higher than baseline for 70% of patients in the AS group with 51% having at least a 9 point increase. This compares to only 50% of patients in the PT group showing an increased score and only 32% with a 9 point or greater gain in HOS-ADL score. With the patient acceptable symptomatic state set at an HOS-ADL > 87 points, 48% of AS and 19% reached this goal. Secondary, patient

reported outcome measures were also statistically higher for patients treated surgically than with physical therapy, and hip flexion range of motion was also greater. Only 3 AS patients had surgical complications, 1 superficial wound infection and 2 with injuries to the lateral cutaneous thigh nerve. There were no outcome differences found for men vs. women or K-L grade 1 vs. K-L grade 0. These early outcomes of the FAIT suggest that arthroscopic surgery for cam-type FAI produces greater improvement, however, the long term results of the FAIT study are needed to determine if these treatments can

modify the risk for OA. The authors currently recommend physiotherapy as the first line of treatment for FAI and warn that their results may not be generalizable to pincer-type FAI.

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July 2019

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