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EULAR Projects in musculoskeletal imaging

SP0060 EULAR RECOMMENDATIONS FOR THE USE OF IMAGING IN MECHANICAL LOW BACK PAIN

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Background: Low back pain is common and relates to a variety of overlapping pathologies. Imaging of the spine has a high priority in the assessment of patients with low back pain. However, studies have shown that clinicians vary widely in how frequently they obtain imaging tests for assessment of low back pain. Technical advances in the field of lumbar spine imaging are made at an increasingly high rate, and it seems likely that improved imaging procedures can indeed increase the understanding of low back pain and aid the diagnostic precision to the diagnostics of mechanical low back pain. The EULAR Task Force consists of radiologists, orthopaedic surgeons, rheumatologists, doctors in physical medicine and general medicine, physiotherapist and patients and the aim of the group was to develop evidence-based recommendations for the use of imaging modalities in low back pain with or without radiculopathy

Based on PICOs established at the first meeting and using European League Against Rheumatism (EULAR) standardised operating procedures a systematic literature review was conducted to retrieve data on the role of imaging modalities including both conventional, contrast enhanced and dynamic approaches in radiography, ultrasound, MRI and CT. The recommendations will be based on the results of the systematic literature review and expert opinion and will be relevant for to all health care professionals who treat mechanical low back patients due to its multifactorial nature.

REFERENCE:

[1] Hansen BB, Hansen P, Carrino JA, Fournier G, Rasti Z, Boesen M. Imaging in mechanical back pain: Anything new? Best Pract Res Clin Rheumatol [Internet]. *Elsevier Ltd* 2016 Aug;30(4):766–85.

[2] Chou R, Fu R, Carrino JA, Deyo RA. Imaging strategies for low-back pain: Systematic review and meta-analysis. Lancet. *Elsevier Ltd* 2009;373 (9662):463–72.

[3] Stochkendahl MJ, Kjaer P, Hartvigsen J, Kongsted A, Aaboe J, Andersen M, et al. National Clinical Guidelines for non-surgical treatment of patients with recent onset low back pain or lumbar radiculopathy. Eur Spine J 2017;1–16.

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MRI

SP0061 HOW TO USE MRI IN THE DIAGNOSIS AND MANAGEMENT OF PSORIATIC ARTHRITIS + CLINICAL CASES

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Psoriatic arthritis (PsA) is an inflammatory joint disease characterised by presence of arthritis, enthesitis and/or spondylitis in patients with psoriasis. PsA presents a wide range of disease manifestations in various patterns. Imaging is an important part of management of PsA and is used for multiple reasons including establishing/confirming a diagnosis of inflammatory joint disease, determining the extent of disease, monitoring activity and damage, assessing therapeutic efficacy, and identifying complications of disease or treatment, in the setting of clinical practice or clinical studies.

Magnetic resonance imaging (MRI) allows detailed assessment of all peripheral and axial joints and entheses involved in PsA and can visualise both inflammation and structural changes. This talk will provide an overview of the status and perspectives of MRI in diagnosis and management peripheral and axial PsA.

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SP0062 HOW TO USE MRI IN THE DIAGNOSIS AND MANAGEMENT OF OSTEOARTHRITIS

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The recent EULAR recommendations for the use of imaging in the clinical management of peripheral joint osteoarthritis (OA) provide an excellent, evidence-based, multi-disciplinary way background to this topic.

For diagnosis, the importance of a detailed history and thorough examination can never be underrated. Imaging should be used as only part of the diagnostic criteria for any rheumatic disease. One of the key EULAR recommendations is that imaging is often not required to make the diagnosis when patients present with a typical presentation of OA, with short-duration morning stiffness and increasing pain with prolonged weight bearing. The major benefit for imaging is in helping differential diagnosis in atypical presentations, and generally radiographs (weight-bearing for the knee) would be used first.

MRI brings its unique 3D strengths to diagnosis. MRI may play a role in the diagnosis of a meniscal tear, but this should only be considered where there is a clear history of locking or blocking to joint extension, rather than gelling (after prolonged immobility) or 'giving way', the latter being usually a sign of muscle weakness. When using MRI it is useful to remember that some degree of synovitis is common in osteoarthritis, and the presence of effusion or synovial hypertrophy does not automatically mean a primary inflammatory arthritis. Another common imaging feature is the bone marrow lesion (BML). This has similar juxta articular location in OA and rheumatoid arthritis, though the pathology is markedly different: BMLs represent osteitis in rheumatoid arthritis but areas of micro-fracture, necrosis and fibrosis in osteoarthritis. So clinical context is critical.

Routine imaging for OA follow up is usually not required unless there is an unexpected rapid progression of symptoms in which case a number of diagnoses should be considered. BMLs show areas of osteonecrosis, so a biopsy report suggesting this is should not be confused with avascular necrosis (AVN). AVN is a condition resulting from the disruption from the vascular supply to a particular bone, often the femoral head, leading to resorption of subchondral trabeculae and clinically related to prolonged cordico steroid use, alcohol excess or previous surgery. It's also been seen in connective tissue diseases. Patients may be under the age of 50, unlike the average age of rapidly progressive osteoarthritis (RPOA). RPOA is relatively uncommon and figures on its incidence vary widely. It is most commonly described again in the hip joint, and it may be the result of secondary osteonecrosis after subchondral fracture. This lesion is of importance because increased frequency of RPOA has been seen in trials of the anti-nerve growth factor monoclonal antibodies in the last decade, where there may be a link to concomitant NSAID use. Subchondral insufficiency fractures (SIF) are another cause of sudden onset pain, usually in the medial side of the knee and not associated with a previous history of trauma. There is a high prevalence of related meniscal tears. This tends to be seen in older females and is associated with the subchondral crescent sign indicating a fracture.

In terms of guiding treatment, at present we do not have evidence that the presence of particular pathologies such as BMLs or synovitis should indicate targeted therapies for those pathologies, though (appropriately) a lot of research is currently underway to see if these do represent legitimate targets for existing and novel therapies.

REFERENCE:

[1] Sakellariou G, Conaghan PG, Zhang W, et al. EULAR recommendations for the use of imaging in the clinical management of peripheral joint osteoarthritis. Ann Rheum Dis 2017 Sep;76(9):1484–94.

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