THURSDAY, 14 JUNE 2018

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 PICO's 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.

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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 corticosteroid 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.

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WIN and HOT session

SP0063

WIN SESSION: ABOUT DIAGNOSIS AND CLASSIFICATION OF SPONDYLOARTHRITIS

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In patients with axial spondyloarthritis (axSpA) an early diagnosis is becoming progressively more relevant. Nowadays, several therapies have shown to be efficacious to control disease symptoms and signs and they are even more useful if administered in early stages of the disease. However, the aim of an early diagnosis is not easy to achieve. Similar to the majority of rheumatic diseases, axSpA is heterogeneous in its presentation, course, and outcome, and does not have a single clinical, laboratory, pathological, or radiological feature to serve as a gold standard in support of diagnosis. With the new therapies available, many research studies are focusing on how to make an early diagnosis of axSpA.

Additionally, some confusion remains about differences between classification and diagnosis of axSpA. In clinical practice, in the absence of diagnostic criteria, the classification criteria are often used to assist in the diagnostic process of a disease. Based on this, there is an ongoing debate about whether or not the current classification criteria should be revised. During this session, the new insights on diagnosis and classification in axSpA will be highlighted.

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SP0064

HOT SESSION: RECENT ADVANCES IN THE MANAGEMENT OF SPONDYLOARTHRITIS

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In the last years the treatment armamentarium for spondyloarthritis (SpA) has been expanded. In addition to non-steroidal anti-inflammatory drugs (NSAIDs) and tumour necrosis factor (TNF)-inhibitors, we nowadays count in daily clinical practice with IL-17-blockers for the treatment of patients with axial SpA. This increase in treatment options has led to an update of the ASAS-EULAR management recommendations, which will be discussed in this lecture, together with the evidence supporting them.

Currently, several studies on tapering to stop biologics in patients with axial SpA with inactive disease are being conducted and the first results available will be discussed. The path is being paved for a treat-to-target approach that is gaining shape in SpA. More evidence towards such an approach has been gathered throughout the last years and strategy trials are now ongoing.

Inhibition of structural progression remains a hot topic in SpA. Whether or not the current interventions we have can achieve such an outcome is not yet fully clear, and the challenges related to this will be discussed in this lecture. More data has come out to help us gain more insight into this complex relationship between disease activity and structural damage and the effect of therapy on it.

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To taper or not to taper in RA

SP0065

TO TAPER OR NOT TO TAPER NON BIOLOGICAL DMARDS IN RA REMISSION?

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Remission is now a realistic goal in rheumatoid arthritis (RA), with a third of patients achieving sustained remission through the use of conventional synthetic disease-modifying anti-rheumatic drugs (csDMARDs) in modern treat-to-target strategies. Nevertheless, csDMARDs pose a risk of severe side-effects and require regular blood safety monitoring, which is both intrusive for patients and expensive for healthcare systems. This poses a therapeutic challenge – when is it appropriate to withdraw csDMARDs from patients with RA in sustained disease remission?

In the first part of this presentation we will use case histories to contrast the possible outcomes following withdrawal of csDMARDs from patients in sustained remission, highlighting the uncertainty facing patients and their clinicians in this scenario (presented by Dr Kenneth Baker). In the second section of this lecture (presented by Prof John Isaacs) we will discuss the criteria to consider when stopping csDMARDs, any potential risks to the strategy, and the potential to identify informative biomarkers to help guide management of the patient in remission.

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SP0066

BIOLOGICAL DMARD CASE PRESENTATION

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We present the case of a male patient, who developed in 2002 (at the age of 37) rheumatoid arthritis, at that time positive for RF and ACPA without erosions on X-rays. He was first treated with salazopyrine, stopped in 2003 because of residual disease activity and structural damage progression on X-rays (MTP 5 erosion, JSN on both carpal joints), then methotrexate, which was efficient but was finally stopped in 2004 for suspicion of MTX pulmonary toxicity (cough, short breath, with CT-scan abnormality). Leflunomide 20 mg/day was started with adequate response up to 2009, when loss of efficacy was recorded. Addition of adalimumab 40 mg every other week was decided, leading to sustained remission.

In 2011, he was on remission with this combination of treatments, and he stopped adalimumab abruptly on his own, resulting in a flare after 4 months (7 tender joints and 5 swollen joints). Adalimumab every other week was restarted, and remission was obtained a few weeks later.

In 2013, he remained on sustained remission, which led to his inclusion in a trial testing the progressive spacing of adalimumab. Every 6 months, the disease activity was assessed in consultation, and hands and feet X-rays were repeated every year: the patient remained on sustained remission according to DAS28, and there was no additional structural damage. Finally, in May 2017, DAS28 was at 1.71 with leflunomide 20 mg/day and adalimumab 40 mg every 2 months, so we proposed to stop adalimumab.

When last seen, in November 2017, the patient was still on remission with leflunomide monotherapy.

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SP0067

TO TAPER OR NOT TO TAPER BIOLOGICAL DMARD

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Remission is more and more achievable in the course of rheumatoid arthritis (RA) or spondyloarthritis (SpA). Tapering strategies have been proposed to reduce the risk of overtreatment of patients with inactive disease. They have been tested in several observational or randomised controlled trials. On this basis, EULAR guidelines recommend to consider careful DMARD tapering in people with sustained remission.

The lecture will develop the potential benefits and risks of a tapering strategy for people affected by RA or SpA, in remission thanks to biologic agents. It will also highlight the residual unmet needs for the care of RA or SpA patients in remission.

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Can we improve the care of gout?

SP0068

DECT IMAGING IN GOUT – READY FOR PRIME TIME?

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Dual energy computed tomography (DECT) allows visualisation of urate crystal deposition in people with hyperuricaemia and gout. This technology is increasingly used in clinical practice for gout diagnosis, and can also guide treatment decisions in gout. The diagnostic properties of DECT will be described and compared with other advanced imaging methods such as ultrasonography. The potential for false positive results due to artefact, and false negative results in the case of small urate crystal deposits will be demonstrated. The role of DECT in