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THURSDAY, 13 JUNE 2019

15:30:00 – 17:00:00

Interstitial lung disease in rheumatic diseases and systemic sclerosis

SP0071 WIN: SYSTEMIC SCLEROSIS – INNOVATIVE TREATMENT TARGETS OR “LOST IN TRANSLATION”?

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Interstitial lung diseases (ILDs) are a group of heterogeneous disorders, either idiopathic (idiopathic pulmonary fibrosis-IPF) or associated with other diseases, particularly autoimmune diseases, from which systemic sclerosis is the leading disease at risk of developing ILD. It has been proposed that for clinical research and patient management various subsets of fibrosing ILD that have similar biological and clinical behaviours could be merged into a single entity although specificities within each disease remain, with various patterns of lung injury. Nevertheless, the shared part relates to progressive fibrosing ILD leading to progressive decline in lung function and early mortality. In SSC, a recent report from EUSTAR network showed that ILD was nowadays the first cause of death identified as contributing to 17% of deaths (1).

No drugs are licensed for the treatment of ILDs related to autoimmune diseases. Treatment guidelines issued by the European League Against Rheumatism (EULAR) recommend tailored therapy with cyclophosphamide (CYC) for SSC-ILD, in particular for patients with progressive ILD (2). Indeed, 3 randomized controlled trials showed some benefits of using CYC either orally or by infusion route although the effect size was small and the clinical translation of the findings was difficult to establish. The limitations of CYC trials in SSC-ILD led the experts to add that dose and duration of treatment need to be tailored individually dependent on the clinical condition and response. Furthermore, with regards to safety, potential risks of bone marrow suppression, teratogenicity, gonadal failure and haemorrhagic cystitis must be always considered. Beyond standard immunosuppression, the use of high dose CYC, with or without irradiation, but using rescue with stem cells showed some effects on ILD measured through lung function and imaging. Nevertheless, considering the risk of potential treatment-related mortality and morbidity, the EULAR experts recommend that HSCT should be considered for the treatment of selected patients with rapidly progressive SSC at risk of organ failure, two domains which remain to be delineated. Altogether these results suggest that immunosuppressants might be beneficial in the context of SSC-ILD although the right drug, the right dosing and the right patients still need to be defined. In practice, because of SLS2 trial, mycophenolate mofetil has emerged as the leading drug used when a physician aims at treating SSC-ILD. The understanding of SSC and SSC-ILD have improved in the recent years and subset at risk and candidate biomarkers have emerged. Indeed, interleukin 6 has been shown to predict some disease progression including lung involvement. Therefore, targeted therapy against IL6 is an appealing strategy to improve SSC outcomes. If the pivotal trials using tocilizumab had skin as a primary outcome and failed to meet the primary end-point, secondary analyses revealed stimulating lung results that will be showed during EULAR 2019 and discussed within the ILD session. B-cells role has also been scrutinized in SSC with promising data. Therefore, rituximab is used in some SSC patients with various indications according to physician views and experience. EUSTAR has assembled a large group of rituximab treated patients and performed a well-designed observational study that did not show clear evidence supporting some efficacy of rituximab on SSC-ILD although some clues emerged.

The role of antifibrotic drugs (nintedanib, pirfenidone), that showed to slow disease progression in patients with IPF, in patients in other forms of fibrosing ILD remains to be determined. However, several trials are ongoing and the results of

the SENSICIS trial evaluating nintedanib in SSC-ILD will be presented during EULAR 2019 and discussed during the ILD session.

Altogether, the available results show some progresses made in the management of SSC-ILD, so far mainly through the use of treatment targeting immune disturbances. Considering the severity and the complexity of SSC pathogenesis and related lung complication, one might anticipate that if trials of antifibrotic therapies are positive, the treatment of SSC-ILD, and maybe of all fibrosing autoimmune ILDs, might involve combination of immunosuppression and antifibrotic therapies.

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THURSDAY, 13 JUNE 2019

15:30:00 – 17:00:00

Diagnostic challenges in vasculitis

SP0072 IMAGING IN THE DIAGNOSIS OF LARGE VESSEL VASCULITIS

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Background: Giant cell arteritis (GCA) and Takayasu arteritis (TAK) are large-vessel vasculitides (LVV). Recommendations demanded so far to confirm the diagnosis histologically, particularly in suspected GCA. Biopsy is however invasive, and results are not immediately available. Technology has rapidly improved; and many recent studies suggest that imaging may have comparable diagnostic accuracy.

Objectives: To provide an overview of new developments for ultrasound, magnetic resonance imaging (MRI), computed tomography (CT) and 18-fluorodeoxyglucose positron emission tomography (PET) in diagnosis of LVV and to present new EULAR recommendations on imaging in LVV.

Methods: A systematic literature review and meta-analysis of diagnostic and prognostic studies enrolling >20 patients and investigating ultrasound, MRI, CT or PET in patients with suspected and/or established primary LVV was conducted (1). On this basis, a group of imaging experts, rheumatologists, patients and health care professionals developed EULAR recommendations on imaging in LVV (2). This review refers also to new data after the EULAR recommendations had been published.

Results: In suspected GCA, imaging should be done early, but without delaying treatment. No further diagnostic test (histology or other imaging) is necessary if results of imaging and clinical presentation correspond. Ultrasound of temporal and axillary artery arteries showing a non-compressible ‘halo-sign’ is the method of first choice in suspected cranial GCA. The meta-analysis showed positive and negative likelihood ratios of 19 and 0.2, respectively, for a final diagnosis of GCA. Good data is also available on MRI of cranial arteries. Ultrasound, MRI, CT or PET can be applied for confirming extracranial GCA. Ultrasound is of limited value for assessing particularly the thoracic aorta. MRI is first choice for suspected Takayasu arteritis, but ultrasound, CT or PET can be also applied. Conventional angiography is not recommended instead for interventions. Imaging might be useful in suspected flare and to monitor damage. There is no convincing evidence to recommend routine monitoring in remission. Imaging should be done by a trained specialist using appropriate equipment.

Particularly ultrasound of cranial arteries showed high diagnostic accuracy in a study for developing new classification criteria. Measuring intima thickness (cut-offs of around 0.4 mm for temporal and 1.0 mm for axillary arteries) may help to improve diagnostic accuracy and to use ultrasound for disease monitoring in trials (3). Reliabilities of sonographers both for evaluating videos and for examining patients directly were very high (4,5). Newer PET technology now allows to also show inflamed temporal, maxillary and vertebral arteries (6). The significance of positive imaging findings in follow-up studies still remains unclear. The incidence of vision loss decreased with the introduction of fast-track clinics. These clinics are increasingly established in centres. They include referral within one working day to a rheumatologist followed by immediate imaging for establishing the diagnosis. Imaging can be done by the rheumatologist (most commonly ultrasound) or by a collaborating department.

Conclusion: Ultrasound, MRI, CT and PET allow to confirm or exclude LVV provided that it is performed by a trained specialist using appropriate equipment. Fast-track clinics using ultrasound are increasingly established in rheumatology.