patients without cataract (p=0.034). Analysis of GC treatment effect on co-morbidities revealed a significant increase in prevalence of diabetes (after 3 months) and systemic signs at baseline [HR 2.01 (1.30;3.11)] were significantly associated with TNF-α antagonists and tocilizumab, respectively. A prolonged treatment period which could be explained by higher ESR levels in PMR patients with cataract. Together, our findings emphasize the importance of novel GC sparing therapeutic agents and personalized medicine in GCA and PMR.

REFERENCES:

Disclosure of Interests: It is important to note that the authors have declared no relevant interests.

OP0068 EFFICACY AND SAFETY OF TNF-α ANTAGONISTS AND TOCILIZUMAB IN TAKAYASU ARTERITIS: MULTICENTER WORLDWIDE RETROSPECTIVE STUDY OF 209 PATIENTS

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Background: In this large worldwide TAK registry, we report 209 patients treated with TNF-α antagonists and tocilizumab aiming to compare their safety and efficacy, and determine the predictive factors of treatment response and relapse.

Objectives: To assess safety and efficacy of TNF-α antagonists and tocilizumab in patients with Takayasu arteritis (TAK).

Methods: We conducted a retrospective multicenter study in referral centers from France, Italy, Spain, Israel, Japan, Tunisia and Russia about biological-targeted therapies in Takayasu arteritis during the period from January 2017 to September 2019. We obtained the data from medical records of recruited patients.

Results: Two hundred nine patients with TAK [median age of 29 years [7-62], and 186 (89%) females] were included. They received either TNF-α antagonists (n=132 (63%)] with 172 lines; infliximab (n=109), adalimumab (n=45), golimumab (n=8), certolizumab (6) and etanercept (n=5), or tocilizumab (n=77 (31%) with 121 lines; intravenous and subcutaneous in 96 and 28 cases, respectively. A complete response at 6 months was evidenced in 101/152 (66%) on TNF-α antagonists and tocilizumab, respectively. A complete response at 6 months was evidenced in 101/152 (66%) on TNF-α antagonists and tocilizumab, respectively. A complete response at 6 months was evidenced in 101/152 (66%) on TNF-α antagonists and tocilizumab, respectively. A complete response at 6 months was evidenced in 101/152 (66%) on TNF-α antagonists and tocilizumab, respectively. A complete response at 6 months was evidenced in 101/152 (66%) on TNF-α antagonists and tocilizumab, respectively. A complete response at 6 months was evidenced in 101/152 (66%) on TNF-α antagonists and tocilizumab, respectively. A complete response at 6 months was evidenced in 101/152 (66%) on TNF-α antagonists and tocilizumab, respectively. A complete response at 6 months was evidenced in 101/152 (66%) on TNF-α antagonists and tocilizumab, respectively.

Conclusion: A large multicenter study shows high efficacy of biological-targeted treatments in refractory TAK. Efficacy, relapse and drug re-treatment rates were equivalent with TNF-α antagonists and tocilizumab.

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.2425

OP0069 THE ROLE OF POSITRON EMISSION TOMOGRAPHY/ COMPUTED TOMOGRAPHY (PET/CT) IN DISEASE ACTIVITY ASSESSMENT IN PATIENTS WITH LARGE VESSEL VASCULITIS

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Background: Assessment of disease activity in large vessel vasculitis (LVV) is still an unmet need. PET Vascular Activity Score (PETVAS) is a new composite score aimed at quantifying the overall inflammatory burden by adding together PET qualitative visual scores (0-3, according to Meller) in nine selected arterial regions (1). In two independent cohorts, PETVAS showed to be effective in discriminating between patients with clinically active and inactive vasculitis.

Objectives: To assess the role of PET/CT and the performance of PETVAS in differentiating between clinically active and inactive vasculitis in a single center cohort of patients with LVV.

Methods: One-hundred patients with radiographic evidence of LVV were enrolled by the Rheumatology Unit of Reggio Emilia Hospital (Italy) between June 2017 and September 2020. All subjects underwent full clinical, laboratory and imaging evaluation (including PET/CT) at baseline, annually and when a relapse was suspected. Medical records of recruited patients were retrospectively reviewed from baseline visit until 30 September 2020, last follow-up or death. For each PET/CT test, the nuclear medicine physician’s interpretation of scans (active/inactive vasculitis) was compared with the expert’s opinion (active/inactive vasculitis). The latter was based on comprehensive signs/symptoms assessment, laboratory and imaging (excluding PET/CT) data and was considered the reference standard.

For each PET/CT scan, PETVAS score was calculated and its performance in discriminating between patients with active and inactive disease was compared to clinical judgement.

Results: In the study period 100 LVV patients (51 giant cell arteritis (GCA), 49 Takayasu arteritis (TAK)) underwent a total of 474 PET scans. Nuclear medicine physician’s interpretation of PET/CT was able to discriminate between patients in clinically active LVV (n=167) and those in clinical remission (n=307) with a sensitivity of 60% (95% CI, 51 to 69%) and a specificity of 80% (95% CI, 75 to 84%). The following sensitivity and specificity values were found in LVV subgroups: 73% (95% CI, 59 to 84%) and 77% (95% CI, 70 to 83%) for TAK, and 51% (95% CI, 38 to 63%) and 82% (95% CI, 76 to 88%) for GCA, respectively.

LVV patients with higher PETVAS scores were more frequently classified as having active disease: age and sex adjusted OR 1.15 (95% CI, 1.11 to 1.19, p<0.0001). Similar results were found in LVV subgroups. [age and sex OR 1.12 (95% CI, 1.08 to 1.17) for GCA and 1.22 (95% CI, 1.14 to 1.31) for TAK, all p<0.0001]. The area under receiver operating characteristics (ROC) curve (AUC) of PETVAS in differentiating between clinically active and inactive LVV was 0.73 (95% CI, 0.68 to 0.79). Similar results were found in LVV subgroups: [0.70 (95% CI, 0.62 to 0.78) for GCA, and 0.79 (95% CI, 0.71 to 0.87) for TAK]. A PETVAS ≥10 provided 61% sensitivity and 80% specificity in differentiating between clinically active and inactive LVV (52% sensitivity and 82% specificity in GCA subgroup and 73% sensitivity and 78% specificity in TAK subgroup).

Conclusion: In our cohort PET/CT has shown to be useful in monitoring LVV disease activity. PETVAS seems to be a reliable tool in helping clinicians to discriminate between LVV patients with active disease and those in remission.

REFERENCES:

Disclosure of Interests: None declared.

DOI: 10.1136/annrheumdis-2021-eular.3713

OP0070 ONSET TO DIAGNOSIS TIME PREDICTS SURVIVAL RATE IN TAKAYASU ARTERITIS

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Background: Takayasu arteritis (TA) is large vessel vasculitis. In spite of relatively high 5 to 15 years survival rate, TA affects young persons and causes major cardiovascular events, disability and preterm deaths [1]. Nowadays, though new
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OP0071-HPR

PILOT IMPLEMENTATION OF ENHANCEMENTS IN SUPERVISED GROUP EXERCISE FOR PEOPLE WITH AXIAL SPINDY ARTHRITIS (AXSPA) IN THE NETHERLANDS

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Background: Supervised group exercise (SGE) for people with axSpA is widely available in the Netherlands [1]. Its contents have barely changed over the past 30 years, despite new evidence-based insights to improve the quality of SGE [1,2]. Objectives: To evaluate the process and effect of the implementation of enhancements in SGE for people with axSpA in the Netherlands. Methods: This implementation study was executed in four regions, organising nine axSpA-specific SGE classes. The implemented enhancements included: 1. Exercise personalisation based on periodic assessments, including the 6-Minute Walk Test (6MWT) and the Ankylosing Spondylitis Performance Index (ASPI); 2. Changes in the Sverdlovsk Regional Clinical Hospital 1. Cox regression model was used to compare survival rate.

Results: By enrollment, females median age was 35 (25%-75%: 24 - 44) and in males median age was 34 (26 -42). Median time duration from the first symptoms onset to the diagnosis verification was 3 [1-7] years in females and [1.5 - 8] years in males. The most common affected arteries were subclavian (55%), carotid (53%), and renal (42%). 5-year survival rate was 92%; 10-year survival rate was 90%; 15-year survival rate was 80%. The median term of survival was 34 [20 – 41] years. 31 deaths (18 males and 13 females) occurred during the follow-up period. Median age of death was 36 [32-44] in females, and 50 [40-57] in males. The average disease course duration at the time of death was 9.25 years, median term being 6.5 [3-16] in females and 3 [5-10] in males. Also a total of 72 cardiovascular events were recorded during the follow-up period: 27 in men and 45 in women. The median duration of AT course by the development of the first ever event was 10 (5 -20). There were 24 cases of ischemic stroke, 3 transient ischemic attacks, 4 cases of hemorrhagic stroke. Median age of the first ever event was 38 (30 -49.5). Time duration 4 years or more from AT symptoms onset to diagnosis was associated with significantly more frequent cardiovascular events (OR 1.8; 95% CI 1.07 – 3.34); and premature deaths (see table) by the 5th year of follow up (OR 2.9; 1.27 - 6.55).

Conclusion: In a retrospective cohort, time duration 4 years or more from TA symptoms onset to diagnosis verification was associated with higher risk of cardiovascular events and lower survival rate.

REFERENCES:


New tools in rheumatology: single cell RNA and epigenetic sequencing, the holy grail?

OP0072

SINGLE CELL SEQUENCING REVEALS CLONALLY EXPANDED CYTOTOXIC CD4+ T CELLS IN THE JOINTS OF ACPA+ RA PATIENTS

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Background: CD4+ T cells with cytotoxic functions (CD4+ CTL) have gained attention in recent years. Accumulating evidence supports their importance in defense against human viral infections such as CMV, EBV, dengue, HIV, SARS-CoV-2. Moreover, expansion of so called CD8null cytotoxic CD4+ T cells have been reported in the blood of patients with rheumatic diseases such as rheumatoid arthritis (RA), myositits and vasculitis as well as in cardiovascular diseases.[10]

Objectives: Here, we aimed to investigate the presence and clonal expansion of CD4+ CTL in the peripheral blood (PB) and synovial fluid (SF) of RA patients using single cell technologies.