Conclusion: This SLR emphasizes the current heterogeneity in the assessment and report of enthesitis. There is still an unmet need for further studies to improve our understanding about enthesopathy.

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AB0483

CAN WE PREDICT WHICH PATIENTS WITH SPONDYLOARTHRITIS WILL NEED DOSE ESCALATION OF SECUKINUMAB TO 300 MG MONTHLY?

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Background: Secukinumab is a fully human monoclonal antibody against interleukin-17A, approved in several countries for the treatment of ankylosing spondylitis (AS) and psoriatic arthritis. It is known that some patients benefit from increasing the monthly dose of secukinumab from 150mg, the most commonly used dose, to 300mg. However, the baseline clinical characteristics that differentiate these patients are not yet fully understood.

Objectives: This study aimed to investigate whether there are any variables at the beginning of biologic therapy that might predict a greater probability of having to increase the dose of secukinumab to 300mg in order to obtain a response to treatment.

Methods: This is a retrospective cohort study, including all the spondyloarthritis and psoriatic arthritis patients under secukinumab at our Rheumatology Department and registered in the national database (Reuma.pt).

Demographic, clinical and laboratorial characteristics and disease activity measures were collected from the first visit before the patient began secukinumab. For comparison between the 2 groups, continuous variables were analyzed using Mann-Whitney U and T-tests and categorical variables were analyzed using a Chi-square test. Multivariate regression analyses assessed the impact of selected variables on the need to increase the dose of secukinumab to 300mg.

Results: Thirty-two patients with a mean age of 53±11.96 years were included, 19 (58%) were females and 16 (48.5%) had psoriasis. Twenty-seven (81.8%) patients were under a nonsteroidal anti-inflammatory drug (NSAID), 11(33.3%) were under corticosteroid and 11(33.3%) were under conventional synthetic disease-modifying antirheumatic drug (csDMARD); 25 (75.8%) had previously been treated with a biological disease-modifying antirheumatic drug (bDMARD). The mean patient baseline VAS and physician baseline VAS were 74,39±19,77 and 47,55±23,38, respectively; the mean erythrocyte sedimentation rate (ESR) and C-Reactive Protein (CRP) were 26,33±22,62 mm/hr and 10,81±16,88 mg/dL, respectively; the mean swollen joint count (SJC) and tender joint count (TJC) were 1,30±1,63 and 3,67±3,14, respectively; the mean Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) and Ankylosing Spondylitis Disease Activity Score (ASDAS) were 6,18±2,06 and 3,41±0,84, respectively; the mean Bath Ankylosing Spondylitis Metrological Index (BASMI) and Bath Ankylosing Spondylitis Functional Index (BASFI) were 4,22±1,58 and 6,28±2,53, respectively; the mean Maastricht Ankylosing Spondylitis Enthesitis Score (MASES) was 2,85±3,23.

Nineteen patients (57.6%) had the dose of secukinumab increased to 300mg. At the baseline visit, the group of patients which had their secukinumab monthly dose increased to 300mg were more frequently men (12 vs 2, p=0.005) and had psoriasis (12 vs 4, p=0.049). On the other hand, these patients also exhibited lower MASES values (2±1.089 VS 4±0.501, p=0.022).

A regression analysis was conducted, estimating the relationships between the outcome binary variable of the monthly dose of secukinumab and the following predictors: gender, psoriasis, MASES value and use of corticosteroid. Female gender (OR 0.070, CI95% 0.005-0.890; p=0.040) and absence of psoriasis (OR 0.104, CI95% 0.011-0.952; p=0.045) were predictors for maintaining secukinumab at a dose of 150mg monthly.

Conclusion: Our data suggest that the most common characteristics of patients in need of increasing the monthly dose of secukinumab from 150 to 300mg to achieve a better treatment response are: male gender, coexistence of psoriasis

and lower MASES value at baseline. The first two variables remained statistically significant in a multivariate model of regression analysis. Nonetheless, we insist it is of paramount importance to conduct larger studies to confirm these findings.

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TROUGH LEVELS OF TNF-A INHIBITORS AND THEIR IMMUNOGENICITY IN THE TREATMENT OF RHEUMATIC DISEASES AND INFLAMMATORY BOWEL DISEASES

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Background: The features of the underlying immune-mediated disease can affect the efficacy, pharmacokinetics and immunogenicity of the biologic agents, which are among the important predictors of loss of response to TNF- α inhibitors (TNFi).

Objectives: To compare the frequency of TNFi low trough levels and their immunogenicity in the treatment of rheumatic diseases (RD) (ankylosing spondylitis (AS) and rheumatoid arthritis (RA)) and inflammatory bowel diseases (IBD) (Crohn's disease (CD) and ulcerative colitis (UC)).

Methods: Among 120 patients (40 with AS (33.3%), 19 with RA (15.8%), 42 with CD (35%), and 19 with UC (15.8%)), trough level of infliximab (INX) (n=36, 30%), adalimumab (ADM) (n=45, 37.5%) and certolizumab pegol (CZP) (n=39, 32.5%) and the level of anti-drug antibodies (ADAb) were measured in the serum samples drawn directly before the planned drug administration.

Results: Low drug level (below 0.5 μ g/mL for INX¹, 4.9 μ g/ml for ADM², and 20 μ g/l for CZP³) was found in 54 (45%) patients: in 33 (55.9%) patients with RD and 21 (34.4%) patients with IBD. In the RD group, low drug trough level was observed more often than in IBD (55.9% vs 34.4%, OR 2.418, 95% CI 1.157 to 5.052, p=0.018). Only in UC was there a relationship between the received low dose of the drug (up to 200 mg of INX, 40 mg of ADM, and 200 mg of CZP) and its low level in the serum (p=0.026). Among the additional factors associated with a low TNFi level, lower dose of concomitant therapy at the time of a biologic initiation (66.7% vs 20.8%, OR 7.6, 95% CI 1.388 to 41.617, p=0.033) and the absence of pseudopolyps (78.9% vs 21.1%, p=0.045) were found in IBD, and in case of RD these factors included the age of 30 to 45 years (72.7% vs 41.9%, OR 3.692, 95% CI 1.136 to 12.0, p=0.026), the absence of comorbidities (58.6% vs 41.4%, OR 3.44, 1.09 to 10.858, p=0.032) and male gender (78.8% vs 50% in women, OR 3.714, 95% CI 1.194 to 11.552, p=0.02).

ADAb were detected in 29 (24.2%) patients (7 to INX (19.4%), 8 (17.8%) to ADM, 14 (35.9%) to CZP), 23 (79.3%) of which had also a concomitant low trough level of the drug. There were no significant differences in the frequency of ADAb formation between the pathologies. In the AS group, antibodies to CZP were detected in all patients with a low level of the biologic, while only in 25% of patients receiving ADM, a low level was associated with the formation of ADAb (p=0.019). In addition, among patients with AS, ADAb were detected only in those patients who did not take prednisone at the time of blood serum sampling (100% vs 37.9%, p=0.037).

Conclusion: Low level of TNFi is more common in RD than in IBD. For each group, the factors associated with a low trough level of TNFi were identified. There were no significant differences in the frequency of ADAb formation between nosologies.

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