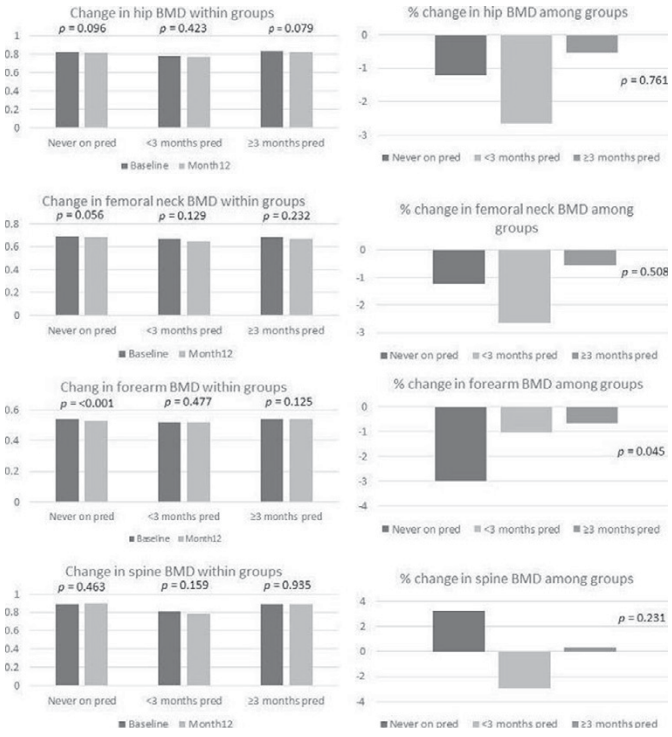
who required ≥3 months of pred treatment are older, with a shorter disease duration and a higher disease activity. Significant differences in the percentage change of BMD in forearm was found among the groups (Pred never/Pred<3 months/Pred≥3 months: -2.99±4.21/-1.05±3.10/-0.65±3.45, p=0.045). Post-hoc analysis revealed that the percentage reduction of forearm BMD was significantly less in the Pred ≥3 months group compared to the Pred never group (p=0.043). After adjusting for age, gender, disease duration and baseline DAS-CRP, the changes in forearm BMD was still significantly different among the three groups (p=0.015). No significant differences in the changes of hip and spine BMD were observed. Significant changes in forearm BMD were observed between baseline and month 12 only in the Pred never group (0.54±0.08/0.53±0.0 p<0.001,graph1).



Conclusions: Small to medium dose of prednisolone might protect bone loss in forearm among early RA patients. These results need to be further validated.

References:

[1] Safety of low- to medium-dose glucocorticoid treatment in rheumatoid arthritis: myths and reality over the years. Ann N Y Acad Sci 2014.

Disclosure of Interest: None declared

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AB0222 THE SERUM ANTI-CITRULLINATED PROTEIN/PEPTIDE ANTIBODIES IN CHILDREN WITH JUVENILE IDIOPATHIC ARTHRITIS

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Objectives: To investigate the diagnostic value and prognostic usefulness of anti-citrullinated protein/peptide antibodies (ACPA) in children with juvenile idiopathic arthritis (JIA).

Methods: The presence of ACPAs in the serum samples from 81 JIA patients were determined using Anti-CCP IgG, CCCP3.1 IgG and IgA ELISA. Citrullinated Protein Antibodies, Anti-MCV, and Aeskulisa RA/CP-Detect which coated various citrullinated antigen substrates: synthetic cyclic peptide, recombinant rat filaggrin, mutated human vimentin, and IgG-derived peptides. 55 children with other joint diseases and 49 healthy donors were control groups. The diagnostic performance of ACPAs was analyzed and correlations between ACPAs and radiological damage were evaluated.

Results: CPAs in 8.8–28.4% of JIA group were detected with specificity of 84.6–98.1%. ACPAs could be seen in all subtypes of JIA, and high levels of ACPAs were particularly found in the RF positive JIA patients No healthy control had increased ACPA tested for CCP, CCP3.1, and CPA, whilst 3and 2 of healthy controls were found positive to MCV and RA/CP, respectively. The presence of ACPAs correlated more frequently with the presence of RF (P<0.05). The ACPA positivities in 18 JIA patients with radiological damage were 27.8–55.6%, which higher than that in patients without damage, and of the ACPA (CCP, CCP3.1, CPA, or MCV) positive JIA patients, 62.5%, 62.5%, 52.9%, 43.5% respectively had radiological damage, which significantly higher than that in JIA patients without ACPA (P<0.05).

Conclusions: This study confirms the main presence of ACPAs in children with polyarticular JIA, especially those with RF positive using ELISA based methods, and ACPAs relate significantly with joint erosions in JIA.

Disclosure of Interest: None declared

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AB0223 PROGNOSTIC FACTORS FOR RADIOGRAPHIC DAMAGE IN PATIENTS WITH SERONEGATIVE RHEUMATOID ARTHRITIS

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Background: Long since it have been suggested that seronegative rheumatoid arthritis (RA) represents a clinical entity quite distinct from that of seropositive RA. However, analytical studies dedicated to clinical outcomes regarding radiographic progression and risk factors for that are scarce[1,2].

Objectives: The aim of this study is to evaluate radiographic outcome and prognostic factors for radiographic damage in patients with seronegative RA.

Methods: RA pateints reportedly seronegative for both rheumatoid factor and anti-cyclic citrullinated peptide antibody who were seen at Jeju National University Hospital in South Korea between August 2003 and December 2016, and followed-up at least 2 years were included. Medical records, laboratory and radiographic data was retrospectively analyzed and multivariate analysis was performed to evaluate prognostic factors for radiographic damage in patients with seronegative RA.

Results: One hundred six patients with seronegative RA were observed and 16 (15.1%) patients demonstrated newly-developed joint damage during follow-up period. Age at diagnosis was 38.9 years and 64 (60.4%) patients were female. Symptom duration at diagnosis was 1.1 years and follow-up duration was 4.4 years. Baseline characteristics including sex, symptom duration, smoking status, number of active joints, acute phase reactant, joint erosion at diagnosis were not significantly different in patients with joint damage compared to those without joint damage. Joint erosion at diagnosis and smoking status were associated with radiographic damage in seronegative RA adjusting age, symptom duration, ESR, CRP values at diagnosis, and follow-up duration, whereas it was not statistically significant (adjusted odds ratio 1.45;p=0.061 and 1.58;p=0.072 respectively).

Conclusions: Our study demonstrated a rate of joint damage in patients with seronegative RA comparable to recent studies. Joint erosion at diagnosis and smoking status showed tendency to correlate with progression of radiographic damage in patients with seronegative RA. A large comparative study dedicated to this issue in seronegative RA is required.

References:

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AB0224 SIMULATION FOR CHOICE OF BDMARDS AND TSDMARDS IN ORDER TO SUCCESS FOR THREE-YEAR SURVIVAL IN RHEUMATOID ARTHRITIS TREATMENT

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Background: In rheumatoid arthritis (RA) treatment, bDMARDs and tsDMARDs (BIO) perform tremendous disease activity control, however, its effectiveness is uncertain and unstable, because their survival ratio is not good enough to tolerate. If more right choice is done in guided by some simulation.

Objectives: This study aims more than 80% of three-year survival ratio (SR@3Y) in simulating risk of BIO by using statistical clinical data and post marketing surveillance (PMS) data with Bayes estimation.

Methods: Infection risk and survival risk were harvested from Japanese PMS data, and our clinical data. All our cases were calculated with last observation carried forward method (LOCF). If BIO was continued for more than three years or discontinued by attaining clinical remission, it was evaluated as success, while other cases were evaluated as failure. Patient's clinical data and general status were calculated for each case, and SR@3Y for success was statistically evaluated with Binary Logistic Analysis for success. Evaluation methods for parameters were divided according to general risk and drug specific possibility. If calculated general risk went above 0.2, selection of BIO was discarded. In other case which had gone below, choice of BIO is done in according to point that had been cumulated by drug specific possibility in choosing what took maximum calculated expectation value.

If chosen drug have matched used BIO, it was evaluated as true, if not, it was evaluated as false, while if true case was in success, it was evaluated as true success, and if in failure, it was evaluated as true failure, while false case was in success, it was evaluated as false success, and if in failure, it was evaluated as true failure. Sensitivity in success cases and specificity in failure cases was evaluated in patients in whom BIO was administered. Statistical evaluation was done with chi-square test.

Results: 188 cases have had enough data for simulating. In these, 108 were success and 80 were failure. In success cases, simulated TNF inhibitor (TNF-i) counted 73, Tocilizumab (TCZ) counted 11, Abatacept (ABT) counted 12, and