Conclusions: Our results demonstrate that 12/15-LOX plays a regulatory role during inflammatory immune response by counteracting the NLRP3 inflammasome activity through down-regulation of caspase-11 and 5-LOX activity. Thus, we identified a novel negative regulatory pathway of inflammasome activity.

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THURSDAY, 15 JUNE 2017

Rheumatoid arthritis - prognosis, predictors and outcome

THU0068 THE RISK OF INDIVIDUAL AUTOANTIBODIES, AUTOANTIBODY COMBINATIONS AND AUTOANTIBODY LEVELS FOR ARTHRITIS DEVELOPMENT IN CLINICALLY SUSPECT ARTHRALGIA

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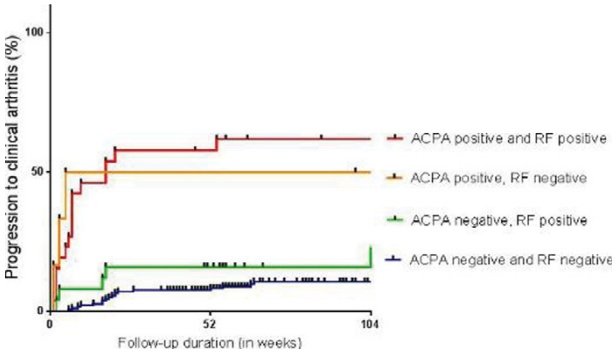
Background: Autoantibody testing is helpful to predict progression to arthritis in subjects at risk. Previous longitudinal studies mainly focussed on autoantibody-positive arthralgia patients. Consequently predictive values of autoantibodies were evaluated relative to each other. This study assessed risks of having anticitrullinated protein antibodies (ACPA), rheumatoid factor (RF) and/or anti-carbamylated protein antibodies (anti-CarP) for arthritis development in arthralgia patients considered at risk for RA by rheumatologists based on clinical characteristics (Clinically Suspect Arthralgia, CSA).
Objectives: To assess risks of having anticitrullinated protein antibodies (ACPA), rheumatoid factor (RF) and/or anti-carbamylated protein antibodies (anti-CarP) for arthritis development in arthralgia patients considered at risk for RA by rheumatologists based on clinical characteristics (CSA).
Methods: Baseline ACPA, RF and anti-CarP antibodies of 241 patients, consecutively included in the CSA-cohort, were studied in relation to development of clinical arthritis during a median follow-up of 103 (IQR 81–114) weeks.
Results: ACPA, RF and anti-CarP antibodies were all univariably associated with arthritis development, hazard ratios (95% CI) were 8.5 (4.7–15.5), 5.1 (2.8–9.3) and 3.9 (1.9–7.7). Only ACPA, and not RF or anti-CarP, was independently associated (HR 5.1, 2.0–13.2). Relative to autoantibody-negative CSA-patients, ACPA-negative/RF-positive patients had HRs of 2.6 (1.04–6.6), ACPA-positive/RF-negative patients 8.0 (2.4–27.4), and ACPA-positive/RF-positive patients 10.5 (5.4–20.6, Figure). PPVs for development of clinical arthritis within two years were: 38% for ACPA-negative/RF-positive, 50% for ACPA-positive/RF-negative, and 67% for ACPA-positive/RF-positive patients. Higher ACPA-levels were not significantly associated with increased progression to clinical arthritis, in contrast to higher RF-levels. Autoantibody levels were stable during follow-up.



Conclusions: ACPA conferred the highest risk for arthritis development and had an additive value to RF. However, >30% of ACPA-positive/RF-positive CSA-patients did not develop arthritis during two-year follow-up. Thus CSA and information on autoantibodies is insufficient to accurately identify imminent autoantibody-positive RA.

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THU0069 HOW MANY RHEUMATOID ARTHRITIS PATIENTS IN REMISSION EXPERIENCE PAIN? WHAT TYPES AND WITH WHAT FREQUENCY WERE PAINKILLERS RECEIVED? IS REACHING REMISSION A REALISTIC GOAL?

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Background: The primary treatment goal in rheumatoid arthritis (RA) patients is to reach remission. Earlier diagnosis, advancements in disease-modifying antirheumatic drugs, and improved treatment strategies have enabled increasing numbers of RA patients to achieve remission. However, the definition of remission involves the fulfillment of specific criteria, which include a number of swollen and tender joints, the erythrocyte sedimentation rate (ESR), and the visual analog scale of pain (VAS pain). Some patients with RA in remission wished to take painkillers because they experienced pain and physical limitations in their daily life or at work. Is reaching remission a realistic goal?
Objectives: To evaluate VAS pain and patient's global assessment (PGA) in those with RA in remission, and to determine the types and frequency of which painkillers were received.
Methods: In a study of 554 RA patients with a definite RA diagnosis according to 1987 ACR criteria, we enrolled 235 patients (82% females). All patients had DAS28-ESR <2.6, defined as clinical remission, and had no acute pain as a result of operation or trauma. The mean age and disease activity were 53.6 years and 2.67, respectively. Seventy-one percent of patients were treated with MTX, 30.2% with glucocorticoids, and 38.4% with a biological agent. We evaluated VAS pain and PGA and investigated why patients experienced dissatisfaction with VAS pain and PGA. Moreover, we elucidated how many patients used painkillers and what types of painkillers were used.
Results: The mean values of clinical and laboratory data were described as follows: 28 swollen joints, 0.69; 28 tender joints, 1.56; RF, 157 IU/mL; C-reactive protein, 0.14 mg/dL; ESR, 19 mm/h; and health assessment questionnaire disability index score, 0.618. Steinblocker stages (I/II/III/IV) were (166/51/18/0), respectively and Steinblocker classes (I/II/III/IV) were (155/68/12/0), respectively. The mean VAS pain was 1.81. Thirty-five (14.9%) of 235 patients had VAS pain >3 (Fig. 1). The mean PGA was 1.54. Seventeen patients (7.2%) reported PGA >3 (Fig. 2). Reasons for VAS pain or PGA of >3 were musculoskeletal pain (48.6%), neuropathic pain (23.1%), psychological reasons (9.3%), and other (19%). Thirty-one patients (13.2%) were treated with painkillers such as NSAIDs (46.2%), acetaminophen (22.5%), pregabalin (18.6%), tramadol (4.1%), and other (8.6%). The mean values for VAS pain and PGA were improved after using painkillers by 0.73 and 0.36, respectively. There was a significant difference in the improvement rate of VAS pain and PGA between pre-use and post-use of pain-killer (Fig. 3).

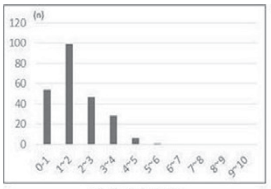

Fig.1 VAS pain

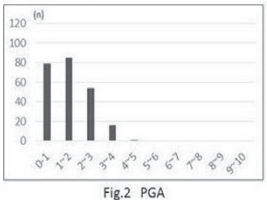

Fig.2 PGA

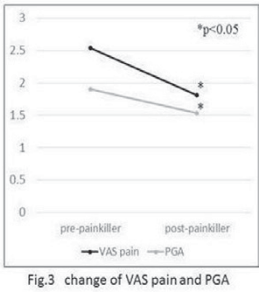

Fig.3 change of VAS pain and PGA

Conclusions: VAS pain and PGA are important for understanding the patients' functional disabilities and problems. We should attend to patients' demands and make an informed decision to form a realistic goal for RA treatment. Given that VAS pain and PGA were improved because of the use of painkillers in the current study, we suggest that the ability to appropriately prescribe painkillers is an important method with which to satisfy RA patients in remission.

Disclosure of Interest: None declared
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THU0070 TREAT-TO-TARGET IN RA: WHAT LEVEL OF TREATMENT RESPONSE IS NECESSARY BY 3 MONTHS IN ORDER TO ACHIEVE THE TREATMENT TARGET BY 6 MONTHS? RESULTS FROM A REAL LIFE STUDY

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Background: When initiating therapy with disease-modifying anti-rheumatic drugs

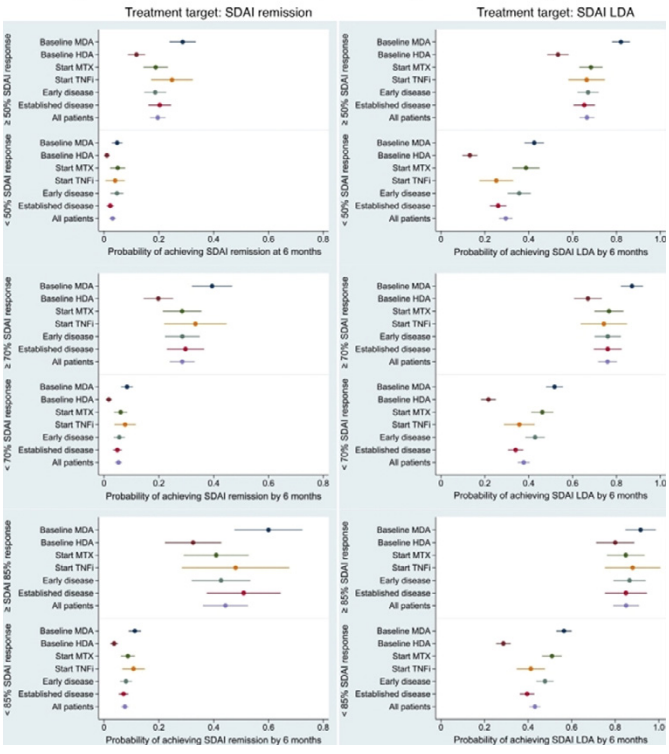
(DMARDs) in patients with rheumatoid arthritis (RA), treatment adoptions are recommended if no improvement in disease activity is seen within 3 months, or if the treatment target has not been reached by 6 months.[1] A pooled analyses from several pivotal RCTs showed that RA patients who did not achieve a minor treatment response by 3 months were unlikely to reach the treatment target by 6 months.[2]

Objectives: To examine what level of treatment response is needed after 3 months of therapy in order to achieve the treatment target of remission (REM) or low disease activity (LDA) by 6 months in a routine clinical setting.

Methods: Data were provided by NOR-DMARD, a prospective, multicentre, observational study. We selected RA-patients enrolled between December 2000 and November 2012, who were biological DMARD-naïve and had a moderate or high disease activity (MDA or HDA, respectively) according to the Simplified Disease Activity Index (SDAI) when initiating therapy. All analyses were performed for the total group of included patients (n=1610), as well as for the following sub-groups: disease duration over (n=895) or under (n=681) 12 months, baseline SDAI MDA (n=825) or HDA (n=785), DMARD-naive patients starting methotrexate (MTX) (n=537) and patients starting tumour necrosis factor inhibitor (TNFi) (n=248). We used a diagnostic test approach, created receiver operating characteristic curves and generated sensitivities, specificities and likelihood ratios (LRs) for all improvement cut-points (0–100%) at the 3-month visit. Furthermore, we tested the ability of established response criteria (SDAI 50/70/85 response) at 3 months to predict the desired target of SDAI remission or SDAI LDA at 6 months.

Results: At inclusion median (IQR) disease duration was 2 (0.2–8.8) years and mean (SD) SDAI was 28.3 (12.8). At 6 months 46.8% of all patients had achieved LDA and 10.8% had reached remission. Not achieving a minor treatment response (SDAI 50% response) by 3 months was associated with decreased probability of reaching remission at 6 months (LR- 0.27), but gave little prognostic information regarding the probability of reaching LDA (LR- 0.49). Patients with HDA at baseline who did not achieve at least 50% improvement in disease activity by 3 months had very low probability of reaching the treatment target by 6 months (LR- 0.15 for remission and LR- 0.30 for LDA). SDAI 85% response at 3 months was predictive of reaching the treatment target at 6 months (LR+ 6.56 for remission and LR+ of 6.45 for LDA). For the total group of patients, a reduction in SDAI of 60.2% was needed at 3 months to predict LDA at 6 months with 80% specificity, while 69.2% improvement was necessary to predict remission.

SDAI response at 3 months and probability of achieving the treatment target by 6 months



Conclusions: These results from a routine clinical setting confirm results from RCTs demonstrating a predictive association between treatment response at 3 months and achievement of the treatment target by 6 months in RA-patients. Assessments at 3 months can inform clinicians to continue or adjust ongoing DMARD-therapy in a treat-to-target strategy aiming for remission or LDA by 6 months.

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THU0071 RADIOGRAPHIC PROGRESSION IN EARLY RHEUMATOID ARTHRITIS PATIENTS FOLLOWING INITIAL COMBINATION VERSUS STEP-UP TREAT TO TARGET THERAPY IN DAILY CLINICAL PRACTICE: RESULTS FROM THE DREAM REGISTRY

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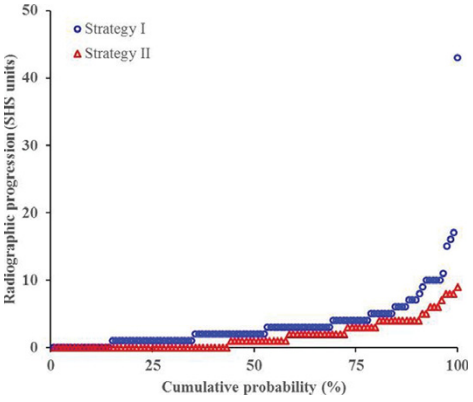
Background: Early and aggressive targeted treatment with disease modifying anti-rheumatic drugs (DMARDs) has been shown to lead to substantial reductions in disease activity (1,2) and radiologic damage in patients with early rheumatoid arthritis (RA) (3,4).

Objectives: The aim of this study was to compare the first-year radiographic progression rates between a treat-to-target (T2T) strategy with initial combination therapy (strategy II) versus an initial step-up monotherapy (strategy I).

Methods: A total of 128 patients from strategy II was individually matched with 128 patients from strategy I on sex, age (± 5 yrs.) and baseline disease activity (± 0.5 on the DAS28). Differences in radiographic progression scores and the number of patients experiencing a minimal clinically important difference (≥5 SHS points; MCID) between both strategies were tested with Mann Whitney U test and chi-square test. Next, linear and logistic regression analyses were performed to examine which baseline variables were associated with radiographic progression scores and the probability of experiencing an MCID within 1 year.

Results: Patients with initial combination therapy had slightly higher baseline disease activity scores and pain scores, but better mental health scores. Patients with initial monotherapy had significantly more, and more frequently clinically relevant, radiographic progression after one year. Experiencing a MCID was associated with fewer tender joints (p=0.05) and higher ESR (p=0.02) at baseline.



Conclusions: Excellent radiographic outcome was achieved for patients treated according to a protocolled T2T strategy in daily clinical practice. Patients treated with initial monotherapy had significantly more short-term radiographic progression than patients treated with initial combination therapy.

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