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Figure 1. Decrease of ICG-enhancement in FOI, phase 1 (P1). Left image shows P1 of both hands at baseline (before C2P). Right image shows FOI in P1 of the same patient at w52 under C2P.

Legend: ICG: indocyanine green; FOI: fluorescence optical imaging; C2P: Certolizumab pegol; w52: week 52

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AB0397

PREDICTION OF RECURRENCE AFTER DISCONTINUATION OF ADALIMUMAB BY USING ULTRASOUND ASSESSMENT -THE PROUD STUDY-

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Background: Tapering of biological disease-modifying anti-rheumatic drugs (DMARDs) is recommended by European League Against Rheumatism (EULAR) in patients with stable rheumatoid arthritis (RA) disease activity. Discontinuation of biological DMARDs can be successful in some patients. However, the predictive factors enabling established patients with RA to remain free of biological DMARDs is unclear. Recently, ultrasonography (US) has become an important imaging tool to identify subclinical synovitis, even in patients with remission. There have been few reports on whether residual synovitis as shown by US can predict relapse of disease activity after discontinuation of biological DMARDs.

Objectives: We aimed to investigate the usefulness of US for predicting relapse in patients in remission for RA after discontinuation of adalimumab (ADA).

Methods: Patients who were using ADA and in remission (Disease Activity Score 28-joint count C reactive protein (DAS28-CRP) <2.6) for longer than 24 weeks were included in this multicenter prospective study. ADA was stopped and patients were followed up until week 52. Predictive factors for relapse at 24 and 52 weeks were analyzed from baseline clinical data, including a US examination. ADA was restarted at the time of relapse (DAS28-CRP ≥3.2). US assessment was performed at 0, 12, 24, 36, and 52 weeks and at the time of relapse. A US examination was performed at the bilateral first to fifth metacarpophalangeal joints, first interphalangeal and second to fifth proximal interphalangeal joints, and first to fifth metatarsophalangeal joints, by using a high-frequency linear transducer. The gray scale (GS) and power Doppler (PD) signals were scored in each synovial site using a semi-quantitative scale from 0 to 3.

Moreover, the modified Total Sharp Score (mTSS) was evaluated at 0, 24, and 52 weeks by conventional radiography. The patients who relapsed were administrated ADA again.

Results: Fifty-three patients were included. Ten (18.9%) patients relapsed up to week 24 and 20 (37.7%) patients relapsed up to 52 weeks. The relapsed patients tended to have a long disease duration, but baseline US findings could not predict relapse. Increases in the PD score were observed during follow-up in some relapsed patients. Disease activity control was good after ADA was restarted in the relapsed group, and there was no difference in progression of the mTSS in the relapsed and non-relapsed groups.

Conclusion: Predicting relapse by baseline US findings after discontinuation of ADA in remission is difficult. However, an increased PD score in a following US examination might be useful for early detection of relapse. Radiographic progression is not significantly different in patients with relapse and those without relapse.

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AB0398

COMPARATIVE SAFETY OF ABATACEPT AND OTHER NON-TUMOR NECROSIS FACTOR INHIBITORS IN RHEUMATOID ARTHRITIS: A SYSTEMATIC LITERATURE REVIEW AND NETWORK META-ANALYSIS

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Background: Abatacept has shown equivalent efficacy with other targeted therapies in rheumatoid arthritis (RA) patients¹, and equivalent or, in some cases, superior safety compared with tumor necrosis factor inhibitors (TNFi)^{2,3}. However, there is limited evidence of its safety profile relative to other non-TNFi.

Objectives: To evaluate the class-level safety profile of abatacept compared with other non-TNFi in adults with moderate-to-severe RA in phase 3 and 4 clinical trials.

Methods: A systematic literature review (SLR) of phase 3 and 4 randomized controlled trials (RCTs) of adults with RA was conducted. The non-TNFi included were abatacept, tocilizumab, sarilumab, tofacitinib, baricitinib and rituximab. A search from database inception until February 2018 was performed on MEDLINE®, Embase, CENTRAL, and the US and EU clinical trials registries. Conference proceedings from ACR and EULAR from 2015 to end of 2017 were also reviewed. Patients who were cDMARD-naïve or not receiving concomitant cDMARD treatment were excluded from the main analysis. In Bayesian network meta-analysis (NMA) random effects model, drug class-level comparisons were made with respect to the risk of total aggregated adverse events (AEs), serious AEs (SAEs), treatment-related AEs, infection, serious infection, and cancer.

Results: We identified 39 RCTs that met the eligibility criteria for this SLR. The risk of bias was found to be low as assessed by the Cochrane Collaboration's tool for assessing risk of bias in randomized trials. Eight studies investigated abatacept (T-cell inhibitor), with no head-to-head comparison to other non-TNFi. Other interventions evaluated were