patients on biologic DMARDs continued these throughout pregnancy. There were comparable miscarriage rates observed when compared with the general population (14% versus 20%). Breastfeeding rates were low at 28% compared to the figure of 55% for the general population in Ireland. Most patients were very satisfied with the service.

REFERENCES:

Disclosure of Interest: None declared


The Impact of Anti-TNF-Therapy on Endothelial Function in Patients with Rheumatoid Arthritis, Psoriatic Arthritis or Ankylosing Spondylitis

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Background: Increased mortality in chronic rheumatic diseases is mostly attributed to cardiovascular events (CVE). Assessment of endothelial dysfunction can help to identify patients at risk for major CVE. Studies have shown that the underlying endothelial dysfunction in rheumatoid arthritis is closely associated with inflammation. Only limited information is available whether the blockade of TNFα can restore endothelial function.

Objectives: To investigate parameters of endothelial function before and after initiation of immunosuppressive therapy (anti-TNF-therapy or methotrexate) in patients with rheumatoid arthritis (RA), psoriatic arthritis (PsA) or ankylosing spondylitis in an open-labeled prospective study.

Methods: Patients with active RA, PsA or SpA were eligible for inclusion with active disease and who were started on treatment with anti-TNF (methotrexate) or bDMARD (anti-TNF-therapy) was started. Study visits were performed at baseline, at 3 and at 12 months. Clinical disease activity and inflammation marker were obtained. Systemic Coronary Risc Evaluation (SCORE) and measurement of intima media thickness (IMT) were performed to assess baseline cardiovascular (CV) risk. Endothelial function was measured as arterial dilatation (arFID), arterial constriction (arFIC) and venous dilatation (venFID) in response to flicker light by dynamic vessel analysis (DVA; IMEDOS) and by peripheral arterial tonometry (EndoPAT) as reactive hyperemia index (RHI). For the primary endpoint, we analysed changes in Z-scores in healthy individuals from the same area as a reference population. The mean Z-score over the study period was estimated using mixed linear effect models. Changes in Z-scores between follow-up visits were analysed using the paired T-test. Data are presented as mean (95% confidence interval (CI)).

Results: 62 patients (37 RA, 13 PsA, 14 SpA) were included (mean age 51.3 ±14.9 years, 46.8% females). The mean ten-year risk of fatal cardiovascular disease (SCORE) was estimated with 2.2% (95%CI: 1.5–3.0). Mean IMT was 0.59±0.13 mm. Treatment was initiated with etanercept (n=21), certolizumab (n=10), infliximab (n=2), adalimumab (n=13), golimumab (n=4) or methotrexat (n=12). Response to treatment after 3 (n=57) and 12 months (n=32) measured by ACR20/50 response for RA and PsA and ASAS20 response for SpA. A comparison was made for changes in endothelial function in responder and non-responder to immunosuppressive treatment.

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Conclusions: Our data indicate, that patients with active RA, PsA or SpA are at risk for cardiovascular events. Immunosuppressive treatment can improve endothelial function at retinal arteries but has no effect on reactive hyperemia index at peripheral arteries. The effect of immunosuppressive treatment on parameters of endothelial function was not different in responders or non-responders and did not depend on whether the patients were treated with anti-TNF-therapy or methotrexate.

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