5. CERTOLIZUMAB PEGOL FOR RA IN PREGNANCY

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Introduction: Certolizumab pegol is a PEGylated anti-TNF therapy approved for the treatment of rheumatoid arthritis. Due to its structure, it does not have significant placental transfer and is thought to be safer in pregnancy than other biologic treatments used to treat RA. We describe successful use of Certolizumab pegol in pregnancy, whereby instant remission of rheumatoid arthritis was achieved in a patient with previous high disease activity.

Case description: A 30 year old personal trainer was diagnosed with seropositive non-erosive rheumatoid arthritis one year prior to conception. DAS28-CRP was 6.45 at diagnosis (tender joint count 16, swollen joint count 8, VAS 85mm and CRP 32). As she was planning pregnancy, Methotrexate and Leflunomide were not used. A trial of treatment with Sulphasalazine had resulted in intolerable side effects. RA was controlled with hydroxychloroquine monotherapy with a DAS28-CRP of 3.4 (tender joint count 3, swollen joint count 2, VAS 50mm and CRP 2.8) and a previous tendon injection. Pregnancy was confirmed at 6 weeks and antenatal care was arranged in the obstetric medicine clinic. During the first trimester, RA flared, with a DAS28-CRP of 5.65. She had an intramuscular depomedrone injection at 6 weeks gestation, and required a further intramuscular depomedrone injection at 15 weeks gestation, when DAS28-CRP was 5.72 (tender joint count of 10, swollen joint count of 8, VAS of 80/100, CRP 15.6). In view of ongoing flare despite repeat intramuscular depomedrone injections and Sulfasalazine intolerance, the patient was extensively counselled regarding treatment options in pregnancy, including the use of Certolizumab pegol. She was initially reticent to start any new treatments in pregnancy, but after extensive counselling with the obstetric medicine team (including specialist midwife) and rheumatology team, she agreed to start treatment with Certolizumab pegol. The patient described overnight remission after the first injection, and remained in remission throughout pregnancy and the post partum period, with a DAS28-CRP of 1.8. Certolizumab was continued throughout pregnancy and the postpartum period, and breastfeeding was successfully established.

Discussion: For the majority of women with RA, disease activity improves during pregnancy. However, RA may flare or remain active during pregnancy and treatment options are limited in these circumstances. Certolizumab pegol is a PEGylated anti-TNF therapy that lacks the antibody Fc-region that is responsible for placental transfer of immunoglobulins. In animal models, no drug is transferred placentally, and only minimal placental transfer has been seen to occur in humans. This case highlights the role this treatment option can have in achieving symptomatic relief and disease remission during pregnancy. It is recommended that RA disease activity be assessed with DAS28-CRP in pregnancy, as ESR rises physiologically in pregnancy. There is also the suggestion that the VAS of global health be excluded, as this also rises in normal pregnancy.

Key leatning points: Certolizumab pegol is a useful treatment option in patients who have active RA in pregnancy despite use of conventional treatments (including Hydroxychloroquine, Sulfasalazine and corticosteroids). EULAR recommendations state that certolizumab may be considered for use throughout pregnancy due to the low transplacental passage. It is also compatible with breastfeeding. DAS28-CRP is the optimal measure of RA disease activity in pregnancy, as ESR rises.