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## POSTER CASE REPORTS

### PSORIATIC ARTHRITIS

#### 15. IS CERTOLIZUMAB A BETTER OPTION IN TREATMENT OF PSORIATIC PATIENTS WITH ACTIVE JOINT AND SKIN INVOLVEMENT?

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**Introduction:** Psoriatic arthritis is an inflammatory condition affecting 5–40% of patients with psoriasis. Common manifestations of the disease include; sacroiliitis, dactylitis, enthesitis and uveitis. Plaque psoriasis is by far the most common type affecting 90% of patients, but other types include guttate and pustular psoriasis. Tumour necrosis factor alpha (TNF- $\alpha$ ) is a pro-inflammatory cytokine that has a key role in the pathophysiology of psoriatic arthritis and psoriasis. Certolizumab pegol (CZP) is a polyethylene glycolylated (PEGylated) Fab' fragment of a humanized monoclonal antibody that binds and neutralizes human TNF- $\alpha$ . It has recently been shown in the notable RAPID PsA trial to be effective and safe. The RAPID PsA trial by Mease et al was a phase 3, double-blind randomised control trial looking into the efficacy and safety of certolizumab when compared to a placebo and followed up over 24 weeks. There is no clear guidance for treatment of psoriatic patients with active skin and joint disease. This case report and a review of the literature suggests that Certolizumab may be better option in patients with active skin and joint disease. In this case we present a lady with severe lifestyle limiting pustular psoriasis and psoriatic arthritis who, after multiple failed conventional pharmacological treatments, achieved excellent symptom control using biological agent Certolizumab pegol.

**Case description:** We present the case of a 63-year-old lady, Mrs A, with a background of psoriasis and palmar pustulosis affecting her feet and hands, first diagnosed in 2002. Mrs A was admitted to hospital in January 2015 under the care of the dermatologists following an adverse reaction of an infliximab infusion received for her psoriasis. Previous treatments for psoriasis that failed included; cyclosporine, methotrexate, Ustekinumab and infliximab. Importantly, she has a background of psoriatic arthritis diagnosed in 2012 that, until her admission in 2015, only caused only mild joint pain. Furthermore, she had various medical comorbidities including; Non-alcoholic fatty liver disease, pulmonary fibrosis, osteoarthritis and gastro-oesophageal reflux disease. Whilst she was an inpatient, a rheumatology opinion was sought despite the main problem being the severe pustular psoriasis and she had active joint disease 'she clinically had dactylitis and bilateral knee effusions. Her disease was having debilitating effects on her quality of life and as a result she was unable to walk due to pustules on the soles of her feet. As her disease activity was high (DAS 6.62), she was initiated on Certolizumab pegol 200mg fortnightly and discharged from hospital after her first injection. Follow up & Response Mrs A was followed up in April 2015 in Rheumatology Biologics clinic and found to have had an excellent response to treatment. After the first injection, the pustules on her hands and feet had almost disappeared and after 2 months her joint disease had improved (DAS 2.74). At further follow up from June 2016 and January 2017, she continued to have an excellent response (DAS 1.94) and skin remained clear.

**Discussion:** Current NICE guidance recognises Certolizumab as a treatment for psoriatic arthritis, but it is not currently in the group of TNF alpha inhibitors recommended in the treatment of psoriasis. According to 2017 NICE guidance on management of psoriasis, the TNF alpha inhibitors adalimumab, infliximab, etanercept and Ustekinumab, can be used in the treatment of severe psoriasis. The guidance states that alternative biological agents must only be used if; 1. Primary failure - Psoriasis does not resolve adequately with the first biological drug under specific NICE technology appraisal guidance 2. Secondary Failure - Psoriasis initially responds adequately but subsequently loses its response 3. The first biological drug is not tolerated or becomes contraindicated Whether the use of certolizumab for psoriatic arthritis with extensive skin involvement should be considered and researched further is an important discussion point for this case. Evidence from the RAPID PsA trial found that patients with severe psoriatic arthritis with extensive skin involvement had a PASI 75 of 64% at week 24 when treated with Certolizumab. In comparison, the study found that Etanercept had a much lower PASI 75 response rate of

23% at week 24, highlighting it is less effective in patients with severe psoriasis. It would therefore be interesting to research further whether TNF alpha inhibitors have a different effect in psoriasis treatment when compared to psoriatic arthritis. In this case Certolizumab was very effective in the treatment of psoriatic arthritis with severe psoriasis, compared to Etanercept which did not have as an effective a response in this treatment group. Overall, this case has demonstrated Certolizumab is an effective treatment for psoriatic arthritis with severe psoriasis.

**Key Learning points:** Certolizumab may be considered in the treatment of psoriatic arthritis with extensive skin involvement and warrants further research into its use in this patient group.