PSORIASIS

BRODALUMAB IS EFFECTIVE IN HARD-TO-TREAT PSORIASIS THAT HAS RELAPSED AFTER IL-17 TARGETING BIOLOGICS: A REAL WORLD STUDY OF THE PSORIASIS IN SOUTH WALES COHORT.

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Introduction: The IL-17 cytokine plays a pivotal role in the pathogenesis of psoriasis, defining the ultimate interaction between immune cells and keratinocytes. Fully human monoclonal antibodies targeting immune cell released 1L-17A alone or IL-17A/F, Secukinumab and Ixekizumab respectively, have proven highly effective in phase 3 studies achieving PASI 100 in 40% of patients. Long-term relapse occurs in up to 40% of patients and the basis for this is unknown.

Objective: Brodalumab is a fully human monoclonal antibodies targeting the IL-17 receptor A on keratinocytes and has proven similarly effective in treatment-naive and anti-TNF relapsed psoriasis. We sought to determine the effectiveness of Brodalumab after relapse from IL-17 targeted therapy in the Psoriasis in South Wales cohort.

Materials and Methods: Within the South Wales population of 2 million there were 18 patients that had relapsed after IL-17 targeting biologics.

Results: The hard-to-treat psoriasis cohort was characterised by: early age of onset 18.6+/-6.5 years, 78% were male, high BMI (31.1+/-3.3), hypertension (30%), diabetes (22%), psoriatic arthritis (44%), and other co-morbidities (60%) including depression (44%). Relapse had occurred despite 4+/-1 prior biologics including one or more (30%) IL-17 targeting biologics. Brodalumab was initiated at age 52+/-7, PASI 13.2+/-4.8, DLQI 14.9+/-6.3. Most patients achieved a PASI 75 within 3-months.

Conclusions: The BADBIR and PSOLAR registries have shown that discontinuation of prior biological therapies may be predictive of lower drug survival with subsequent biological

therapies. However, the efficacy in prior biologic relapse psoriasis from published studies is not conclusive and moreover, exclusively relate to anti-TNF failures. The biological basis for long term relapse after IL-17A and IL-17A/F remains to be determined. These findings suggest that downstream targeting of the IL-17 pathway with Brodalumab targeting the keratinocyte IL-17 receptor A, remains a valid therapeutic option for patients that relapse after IL-17 targeting therapy.