RISING DERM STARS

Off-Label Treatment of Prurigo Nodularis with Dupilumab: A Case Series Study

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Introduction: Prurigo nodularis (PN) is a chronic, debilitating disease of unknown etiology without any current FDA-approved treatments[1]. No randomized clinical for PN exist currently. Each treatment modality that has been described in the literature to date has offered minimal improvement with high risks of serious adverse side effects. In this case series, we present a promising potential new option for the treatment of prurigo nodularis.

Methods: Case series of 3 female patients (age range 37-57 years) diagnosed with prurigo nodularis with history of multiple treatment failures. Each patient was treated with the standard FDA approved dosing regimen of dupilumab (Dupixent, Regeneron-Sanofi), a fully human monoclonal IgG antibody that targets the alpha subunit receptor site of IL-4, blocking the effects of the IL-4 and IL-13 signaling pathway[2]. The standard dosing regimen included 600mg SQ injection induction dose followed by 300mg SQ injections every two weeks thereafter. To quantify the effectiveness of dupilumab in treating the itch of PN, average patient reported numeric rating scale itch intensity (NRSi) were calculated on a scale of 0-10 before and during therapy with dupilumab. Additionally, all patients were monitored for adverse side effects during treatment.

Results: Prior to initiation of therapy, two patients had NRSi scores of 10/10 and one patient had an NRSi of 6/10 giving an average of 8.6/10. During treatment with dupilumab, none of the patients experienced any adverse side effects including itchy or red eyes. After one month of therapy, one patient reported an NRSi of 3/10, while the other two patients reported NRSi of 0/10. At 3 month follow-up, all 3 patients reported NRSi of 0/10. No side effects were reported.

Discussion: In a recent retrospective study from a tertiary itch center, prurigo nodularis was a common cause of chronic pruritus with the highest reported mean NRSi (8.7 ± 1.7) and the lowest reduction in mean NRSi (-1.9 ± 3) after treatment[3]. Many potential treatments have been described in the literature with unsatisfactory response to treatment and serious adverse side effects[1, 4-5]. Additionally, all of these treatments are currently used off-label for the treatment of PN. The three patients presented experienced an average NSRi of 8.6/10, which is in line with previous reports[3]. The average reduction in NRSi in our three

patients (-8.6), however, is much higher than other reported treatment modalities. While this report is limited, with only three subjects presented, the magnitude of the response to dupilumab in our three patients with PN is remarkable. Our findings raise the specter of new potential therapy for the treatment of PN, warranting randomized clinical trials.

References:

References:

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