Refractory Psoriasis

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Introduction

Psoriasis is an autoimmune mediated chronic disease that involves the skin, nails as well as the joints. This disease has a negative impact on psychosocial, physical and emotional welfare of those inflicted with disease. There is an approximate 2 percent prevalence found in the US population. Genetics play a big role in psoriasis however other risk factors include environmental and infections. The disease presents itself in several clinical presentations however image notable to be chronic, erythematous based with his scaly plaques and symmetry. A bimodal age of onset has been observed. Mean age of onset for first presentation of psoriasis can range from age 15-20 years (Type I psoriasis). It does have a second peak occurrence at age 55-60 years (Type II Psoriasis). Henseler and Christophers studied a group of patients and found that type I pts tend to have more relatives affected by more severe disease than Type II patients. [1].

Case Presentation

40 YO Caucasian female, current tobacco smoker with a history of psoriasis failing multiple treatment regimens who returned to Eastside Primary Clinic after 2 years in hopes of clearing/controlling psoriasis. Patient has been suffering from psoriasis since childhood. She at first presented with psoriasis guttate but then progressed to psoriasis vulgaris. She stated that at age 37 the rash had worsened. Rash began on upper extremities, axillary region and chest and slowly began to other parts of her body which include thighs, buttocks, inguinal fold, bilateral anterior/posterior lower extremities, abdomen, back and scalp. About 25 percent of her BSA is involved. Lesions described as scattered pink erythematous plaques with overlying scale. Patient endorsed pain and pruritus. Also complained joint pain in multiple regions and mild pitting of fingernails was noted. Patient was very disheartened and refrained from social gatherings due to shame from skin lesions. She trialed clobetasol, oral steroids, methotrexate, Humira but patient discontinued these due to concern for side effect profile. Endorsed intolerable side effects with Humira (headache, dizziness and vision loss). Insurance did not approve Stelara. Denied eye iritis or colitis. Patient denied family history of skin lesions. Patient does not recall any association of guttate psoriasis subsequent occurrence with episode of tonsillitis. She does not have a history of metabolic syndrome. Of note patient did receive intermittent steroid injections for back pain which did help improve psoriatic rash.

Treatment Plan

Brodalumab (human monoclonal IgG2 antibody that inhibits IL-17 receptor A inhibitor): Prefilled syringe must rech room temperature before administration. Administer 210 mg at week 0, 1, and 2, then followed by 210 mg once every 2 weeks subcutaneous injection. Discontinue if adequate response is not achieved after 12 to 16 weeks. Unlikely to achieve a greater success beyond 16 weeks if adequate response is not achieved within 16 weeks. 210 mg/1.5 mL (per mL): $1,728.77. Discussed box warning of suicidal behavior while taking intramuscular brodalumab. Brodalumab is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the SILIQ REMS Program which patient had agreed to and signed. Patient states she will seek medical attention and discontinue Brodalumab if she has any thoughts of suicide. Significant other is very supportive of pt.

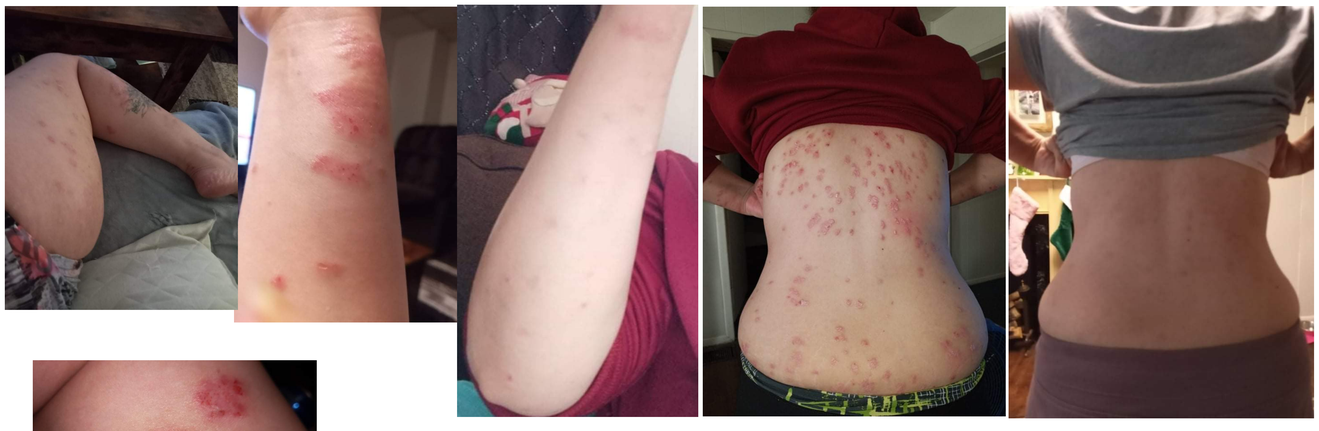
Results

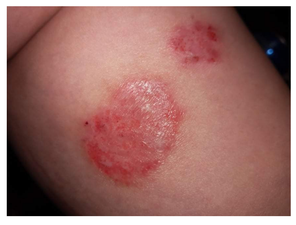
Patient's Psoriasis greatly improved with Brodalumab. Pt continues to receive Siliq injection every 2 weeks to keep rash under control. States she is happy and satisfied with the results. She is no longer embarrassed of appearance.

For additional information please contact:
Insert Name and contact information

Discussion

Psoriasis is a chronic autoimmune inflammatory skin disease with strong genetic predisposition. Its prevalence is worldwide but varies amongst different regions and ethnicities. Increased understanding of the pathogenesis of psoriasis have been aimed to target inflammatory pathways. Manifestations of psoriasis very. Tthe development of the psoriatic plaque is not restricted to inflammation in the epidermal layer, but rather is shaped by the interaction of keratinocytes with many different cell types (innate and adaptive immune cells, vasculature) spanning the dermal layer of the skin [2]. Individuals with psoriasis are more likely to suffer from obesity, cardiovascular disease, non-alcoholic fatty liver disease, diabetes and metabolic syndrome than the general population. This may be related to shared genetic traits, pathogenic inflammatory pathways and common risk factors and resulting is an increased mortality rate in patients with severe psoriasis, primarily due to cardiovascular causes. This is potentially modifiable, with aggressive psoriasis treatment shown to improve cardiovascular outcomes. The choice of therapy for psoriasis is determined by disease severity, comorbidities, and access to health care [3]. Our patient presented with history of psoriasis failing multiple treatment regimens. She was 1st treated with topical clobetasol propionate which is a corticosteroid used to inhibit synthesis of inflammatory mediators. Clobetasol propionate mechanism action is by binding to cytoplasmic glucocorticoid receptors and activates glucocorticoid receptor mediated gene expression, which results in synthesis of anti-inflammatory proteins. Pt failed this medication. Patient did take oral DMARD; methotrexate which is chemotherapy/immunosuppressive agent. She did not tolerate side effects. It works by suppressing the overactive immune system through inhibiting dihydrofolate reductase. Patient received trial of Humira but face intolerable side effects which included he headache, dizziness and temporal vision loss. Humira is a fully human monoclonal antibody which binds with TNF alpha receptor. Brodalumab: A human monoclonal IgG 2 antibody that inhibits the interleukin-17 receptor A pathway. By inhibiting IL-17RA the cytokine induced responses are blocked. Patient had negative QuantiFERON and signed REMS. Patient greatly improved with treatment regimen beginning after week 2. She not only significantly improved with skin rash but also joint pain.





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