

How biologics have brought a paradigm shift in treatment of psoriasis

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Dr. B.S. Chandrashekar, Medical Director, CUTIS Academy of Cutaneous Sciences, Bangalore talks about the treatment options in psoriasis



In the year 1979, the scientific community began to evolve their understanding of psoriasis and it was found that the condition is 'not just a skin disease'. The cause of this chronic, multisystemic disease was identified as the dysregulation of the immune system. At this point, researchers also discovered that 'cyclosporine', an immunosuppressant, successfully cleared psoriasis plaques.

Advanced treatment options for psoriasis

The T-helper cell 17 (Th17) is a subset of effector memory T cells. Th17 cells play a critical role in the induction of the tissue inflammation and tissue destruction that are hallmarks of many immune-inflammatory diseases. Over time, it was determined that the TH17 pathways play a larger role in psoriasis than TH1 pathways.

TH17 is considered to be the central player in the pathogenesis of psoriasis, with the pro-inflammatory cytokine IL-17A as a key effector. Activated TH17 cells produce inflammatory cytokines including IL-17A, IL-17F, IL-22, and TNF-alpha. The cytokines, in turn, cause skin thickening and erythema due to vasodilation and angiogenesis. As a result, greater understanding of immunology of this condition has brought with it the development of newer medications, including those that use IL-17 as its therapeutic target.

The discovery of new and advanced treatment options for psoriasis has revealed much about the multisystemic nature of this disease. With multiple treatment options available, determining and selecting the right initial therapy could be daunting. However, scientific medical research and trials have shown that biologics play a positive role in treating moderate to severe psoriasis as they target specific cytokines that cause inflammation and skin lesions. Also, advanced biologic therapies have shown positive results by achieving a *Psoriasis Area and Severity Index* (PASI 75) up to 90.

Although mild psoriasis can be treated with topical agents, it is critical to consider biologic therapy for patients with moderate to severe psoriasis, along with oral systemic agents and/ or phototherapy. In some cases, clinicians may need to prescribe combination therapy to provide rapid relief to patients.

It is crucial to consider alleviating both short and long-term efficacy, essential to the treatment choice. Before starting a biologic regimen, clinicians should also ascertain if the patient is suffering from psoriatic arthritis and the severity of it. The reason why many clinicians opt for biologics is because it not only helps manage psoriasis but also has the potential to benefit patients with comorbidities like psoriatic arthritis.

The availability of new biologic treatments with targeted mechanisms of action has transformed the treatment landscape for psoriasis. Currently, Etanercept, infliximab, adalimumab and Secukinumab

are the biologics approved by The Central Drugs Standard Control Organization (CDSCO) for the treatment of psoriasis in India. The increasing use of biologic medications reflect their high efficacy rates, relatively good safety profile and demonstrated improvement of quality of life.

Improved quality of life for psoriasis patients

According to an international survey, it was found that post undertaking biologic treatment, 75.2% patients rated their improvement as 'significant' or 'complete', indicating a higher rate of improvement than originally expected. When asked about overall satisfaction with using biologics, 62.6% of patients stated 'very satisfied' with biologics. When asked about how worried patients are that the biologic medication will cause an adverse effect, 57.5% of patients responded, 'not worried at all' or 'minimally worried'. These statistics indicate that the positive outcomes on quality of life of patients treated with biologics.

Before starting biologic therapy, the doctor should inform the patient about any possible short-term or long-term risks and weigh them against the benefits of the drug. Any pre-existing medical condition should also be closely accounted for, especially in case of any co-morbid diseases.