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Editorial

Disease modification in psoriasis

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Psoriasis (PS) is chronic inflammatory skin disease, affecting 2- 3% of world's population.[1] It is similar to other immune mediated disorders, associated with systemic inflammatory burden and various co-morbid conditions like psoriatic arthritis (PsA).[2]

It has been established that interleukin (IL) are mainly involved in the pathogenesis of PS. The interleukin(IL)-23/T helper 17 (Th 17) pathway has a key role in this regard.[3] IL-23 has direct effect on epidermal keratinocytes and other residents kin cells, and IL-17 can activate inflammatory response in cells of different organs.

A stepwise approach has been employed in the management of PS, which may delay effective intervention and subsequently lead to established disease.[4] Furthermore psoriatic lesions have the tendency to recur at the same site. The residual disease at cellular and molecular level may persist after treatment.[5] T cells with phenotype TRM (tissue residential memory) T cells remain elevated in clinically resolved lesions known as 'molecular scar. TRM T cells are clonal alpha beta cells and produce IL 17A upon stimulation.[6] The persistence of TRM-T cells and transcription alteration, my lead to recurrence of disease upon various stresses and after cessation of treatment.

Early intervention with biologics in the immune mediated diseases like rheumatoid arthritis and Crohn's disease have shown good results.[7,8] The aim is to target the disease in an immature stage also called as 'window of opportunity', in which disease is more susceptible to disease modifying agents.[9] In PS, early intervention with biologics can lead to prevention of complications like Ps A, and halt progression of disease.[10]

Long term treatment with biologics achieves sustained activity associated with early achievement of complete clearance (super responders patients), maximum expression of remission and disease modification may lead to disease cure.[11]

Management of Ps has advanced considerably in recent years. PS is more than just a skin disease. Co-morbid conditions should be considered before planing treatment strategies. Early intervention with biologics in patients having new onset and less extensive disease is advocated and disease modification should be the treatment goal to achieve.

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References

1. Griffiths CEM, Armstrong AW, Godjonsson JE, *et al*. Psoriasis. *Lancet* 2021;**397(10281)**:1301-15.
2. Davidovici BB, Satter N,Jorg PC, *et al*. Psoriasis and systemic inflammatory diseases: Potential mechanistic links between skin disease and co-morbid conditions. *J Invest Dermatol*. 2010; **130**:1785-96.

3. Magina S, Felipe P, *et al*. Pathophysiology of moderate to severe plaque psoriasis: Anti IL-17 towards disease modification. *Drugs Today*. 2021;**57(5)**:347-57.
4. Nasty A, Smith C, Spurs Pl, *et al*. EuroGuiDerm guidelines on the systemic treatment of psoriasis vulgaris. *J Eur Acad Dermatol Venerol*. 2021;**73(2)**:181-93.
5. Suarez Farinas M, Fuentes Duculan J, Lowes MA, *et al*. Resolved psoriasis lesions retain expression of a subset of disease related genes. *J Invest Dermatol*. 2011;**131(2)**:391-400.
6. Mantos TR, O Malley JT, Lowery EL, *et al*. Clinically resolved psoriatic lesions contain psoriatic-specific IL-17 producing alpha beta cell clones. *J Clinic Invest*. 2017;**127**:4031-44.
7. Deane KD, Holers VM, Rheumatoid arthritis pathogenesis, perdiction, and prevention: An an emerging paradigm shift. *Arthritis Rheumatol*. 2021;**73(2)**:181-93.
8. Berg DR, Colombia JF,Ungaro R, *et al*. The role of early biologic therapy in inflammatory bowel disease. *Inf Bowel Dis*. 2019;**25(12)**:1896-905.
9. Hakim Ben A, Thomas E, Anna B, *et al*. Early intervention and disease memory in psoriasis: A literature review. *J Euro Acad Dermatol Venerol*. 2022;**1(4)**:307-16.
10. Scherzo J U,Ogdie A, Merola J F, *et al*. Preventing psoriatic arthritis: Focusing on patients with psoriasis at risk of transition. *Nat Rev Rheumatol*. 2019;**15**:153-6.
11. Francesco B, Andera C, Stefano P, *et al*. Could targeted pharmacotherapies exert a 'disease modification effect' in patients with chronic plaque psoriasis. *Int J Mol Sci*. 2022;**23(21)**:12849-64.