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Commentary

Implications of using Anti-Interleukin-23 Therapy in Treating Generalized Pustular Psoriasis: Commentary

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DESCRIPTION

The management of Generalized Pustular Psoriasis (GPP) poses significant challenges for dermatologists due to its rarity, unpredictable course, and potential life-threatening nature. The case report presented by Lee, et al. [1], in the Italian Journal of Dermatology sheds light on the promising implications of using anti-interleukin-23 (IL-23) therapy, specifically risankizumab, as a potential treatment strategy for this perplexing condition.

GPP is characterized by sterile pustules on a red background, often accompanied by systemic symptoms such as fever and elevated inflammatory markers like C-Reactive Protein (CRP)[2]. Traditional treatments like corticosteroids, phototherapy, and systemic medications have shown limited efficacy and often result in temporary relief with the risk of relapse. Biologic therapies, including anti-TNFα, anti-IL-17, and anti-IL-23 agents, have emerged as potential alternatives, albeit with varying degrees of success. While the focus has been on targeting IL-17 due to its critical role in inflammation and autoimmunity, the IL-23 pathway has also garnered attention. IL-23, a cytokine produced by dendritic cells, is instrumental in promoting the differentiation of Th17 cells, a key source of IL-17 [3]. These Th17 cells play a pivotal role in the pathogenesis of psoriasis and related conditions. The rationale for targeting IL-23 stems from its upstream position in the inflammatory cascade, impacting the initiation and perpetuation of inflammation through downstream cytokine signaling, including IL-17.

The case presented by Lee, et al. [1], demonstrates the potential efficacy of risankizumab, an anti-IL-23 therapy, in treating GPP. The response achieved with risankizumab, in fact, underscores the significance of IL-23 in the inflammatory processes underlying GPP. This case, although singular, raises important implications for clinical practice and further research. Firstly, it suggests that IL-23 inhibition can be a valuable therapeutic approach for GPP, even in the absence of direct IL-17 blockade. By targeting IL-23, the treatment might disrupt the cycle of inflammation at an earlier stage, potentially influencing downstream cytokines such as IL-17 and IL-22. This mechanism aligns with the complex interplay between different cytokines in the psoriatic immune response. Secondly, the concept of maintenance therapy gains prominence. GPP is characterized by a waxing and waning course, with acute flares interspersed with periods of remission [4]. This unpredictability necessitates sustained management strategies. In fact, if it's true that the anti-IL-36 drug spesolimab showed good results in the treatment of GPP flares (single dose of 900 mg i.v., with the option of a 2nd dose if symptoms persisted on Day 8), there is, however, a need for a maintenance therapy to prevent new and potentially fatal flares [5]. The remission that could be achieved through risankizumab use post-spesolimab treatment highlights the potential for long-term control of GPP with targeted therapies. It is important to note, however, that the findings presented in the case reported by Lee, et al. [1] are based on a single patient, and extrapolation to a broader population requires caution. Rigorous clinical trials involving larger patient cohorts are essential to validate the effectiveness and safety of IL-23 inhibition in GPP.

CONCLUSION

The case report discussed here adds to the growing body of evidence supporting the therapeutic potential of anti-IL-23 agents in managing GPP. As research progresses, a better understanding of the interplay between IL-23 and other cytokines involved in GPP pathogenesis will likely contribute to the development of more targeted and effective therapeutic options for this challenging dermatological condition.

REFERENCES

1. Lee MM, Fantini C, Mori E, Feliciani C, Satolli F. Rapid response of generalized pustular psoriasis to treatment with risankizumab. A therapeutic option for a difficult-to-treat disease. Ital J Dermatol Venerol. 2023;158(4):377-378.
2. Bachelez H. Pustular psoriasis: The dawn of a new era. Acta Derm Venereol. 2020;100(3):87-92.
3. Avallone G, Maronese CA, Murgia G, Carrera CG, Mastorino L, Roccuzzo G, et al. Interleukin-17 vs. interleukin-23 inhibitors in pustular and erythrodermic psoriasis: A retrospective, multicentre cohort study. J Clin Med. 2023;12(4):1662.

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4. Ozawa A, Ohkido M, Haruki Y, Kobayashi H, Ohkawara A, Ohno Y, et al. Treatments of generalized pustular psoriasis: A multicenter study in Japan. J Dermatol. 1999;26(3):141-149.

5. Bachelez H, Choon SE, Marrakchi S, Burden AD, Tsai TF, Morita A, et al. Trial of spesolimab for generalized pustular psoriasis. N Engl J Med. 2021;385(26):2431-2440.