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LETTER TO THE EDITOR

Glucagon-like peptide-1 receptor agonists in dermatology: more than meets the eye

O papel dos agonistas do receptor do GLP-1 em dermatologia: novas evidências

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Dear Editor,

In 2016, we published a review discussing the extrapancreatic effects of incretin-based therapies, highlighting their potential influence on immune regulation and tissue homeostasis[1]. At the time, their dermatological applications remained largely speculative. However, recent studies have provided compelling evidence that glucagon-like peptide-1 receptor agonists (GLP-1 RAs), such as semaglutide and tirzepatide, may offer significant benefits in skin diseases characterized by inflammation and metabolic dysfunction[2].

These effects stem from GLP-1 receptor expression in activated regulatory T cells, leading to reduced proinflammatory cytokine activity through inhibition of tumor necrosis factor-α, nuclear factor-κB, interleukin (IL)-23, IL-17, and IL-22[1,2]. Indeed, emerging data suggest that GLP-1 RAs may be valuable in managing dermatometabolic conditions such as psoriasis[3], hidradenitis suppurativa[4], and acanthosis nigricans[5]. In addition, their potential role has been reported in Hailey-Hailey disease[6].

Revisiting the concepts outlined in 2016, it is now evident that incretins may represent more than metabolic mediators; they could be transformative agents in the treatment of inflammatory skin diseases due to their pleiotropic effects, spanning immunomodulation, metabolic regulation, and fibrosis modulation[1,2].

As such, despite their widespread use in bariatrics, cardiology, and endocrinology, GLP-1 RAs should not be overlooked by dermatologists. Given the systemic nature of metabolic-immune interactions, advancing our understanding of these agents in dermatology requires interdisciplinary collaboration. Research and clinical partnerships will be essential to optimize therapeutic strategies and expand their applications beyond current indications.

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Conflicts of interest

None.

Ethical considerations

Protection of humans and animals. The authors declare that no experiments involving humans or animals were conducted for this research.

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