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GLP-1 receptor agonists and the skin: A suggested addition to the *SAMJ* obesity series

To the Editor: The *SAMJ* obesity series[1] rightly highlights glucagon-like peptide-1 receptor agonists (GLP-1 RAs) as an increasingly important part of obesity management.[2] As ~32% of South African adults seen in primary care are living with obesity,[3] more clinicians, and especially general practitioners, will increasingly be prescribing these drugs. Consequently they will more frequently encounter their effects on the skin, which receives little attention in the series. Three issues are worth anticipating.

Firstly, skin laxity in both the face and trunk. Rapid loss of subcutaneous fat can produce cheek hollowing, jowling and an aged facial appearance, while substantial weight loss elsewhere may leave persistent loose skin that the dermis does not retract around.[4] These changes are not direct effects of the medication, but a predictable consequence of rapid weight loss. Patients should be counselled before starting treatment, and optimising dietary protein intake and resistance exercise may help to mitigate some of these cosmetic concerns. Where clinically appropriate, gradual dose escalation can also reduce the rate of weight loss. In cases of significant or distressing change, referral for aesthetic management should be considered.

Secondly, hair shedding. Telogen effluvium typically develops 2 - 4 months after rapid weight loss. Pharmacovigilance data from the US Food and Drug Administration Adverse Event Reporting System have also shown disproportionate reporting of alopecia with semaglutide and tirzepatide.[4,5] The condition is usually self-limiting, and reassurance, attention to dietary protein and iron status, and correction of nutritional deficiencies may be sufficient to alleviate it. In prolonged or distressing shedding, topical minoxidil may be considered in selected patients.[6]

Thirdly, the injection site and rare immune-mediated reactions. Patients should be advised to rotate injection sites and use a new needle with each injection. Rarely, and without a proven causal link, bullous pemphigoid has been reported. While mild local reactions are common, any new blistering rash should prompt dermatological referral rather than symptomatic treatment alone.[7]

The relationship between GLP-1 RAs and dermatology is not limited to adverse effects. Emerging evidence suggests these agents may improve certain inflammatory dermatoses, particularly psoriasis, as highlighted by Murphy *et al*.[8] in their assessment of people living with obesity, as an obesity-associated skin finding. Whether this benefit reflects weight loss, improved glycaemic control or direct immunomodulatory effects remains uncertain.

A brief dermatological note would usefully complement the series, as primary care clinicians increasingly prescribe these drugs and often have limited access to dermatological services. Visible skin and hair changes can negatively affect body image and treatment satisfaction. Anticipating these effects improves patient counselling, supports adherence, reduces unnecessary discontinuation and helps to distinguish expected changes from those requiring specialist referral. As GLP-1 RA use continues to expand beyond specialist settings, recognising their dermatological implications should form part of routine obesity care.

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Response to: GLP-1 receptor agonists and the skin: A suggested addition to the *SAMJ* obesity series

To the Editor: Obesity is a disease with many complications, directly or indirectly linked to excess adiposity, and its treatment requires a multimodal approach, which may include pharmacological management with GLP-1 receptor agonists (GLPRAs) (semaglutide, liraglutide) and tirzepatide (a GLP1/GIP dual agonist (GLP-1/GIPRA)).[1,2] Although cost currently limits access in South Africa (SA), the use of these agents has increased.

Assessment of skin integrity is important in the evaluation of a person living with obesity (PLWO) as these individuals face higher skin risks from moisture, friction in skin folds and limited reach.[3] Common issues are dryness, itchiness, broken skin, redness and rashes – mostly under breasts, limbs, groin, abdomen and thighs, where skin folds and contact occur. Risk factors include: hyperhidrosis/excess moisture in skin folds, leading to intertrigo or heat rash; limited range of motion and heavy skin folds that are hard to clean, with risk of pressure injuries; malnutrition impairing skin healing; and difficulty reaching some body areas. Referral to a skin care expert should be considered.

Three considerations are noted by the authors as a suggested addition to the *Clinical Practice Guideline on Management of Obesity in Adults in South Africa*.

Firstly, the predictable consequence of weight loss leading to skin laxity in the face and trunk, and causing loose skin folds. The importance of adequate dietary intake and muscle preservation is emphasised to mitigate this. However, PLWO should be considered for specific body-contouring assessment and surgery, if necessary.[4] This has been shown to improve quality of life post metabolic and bariatric surgery.[5] SA guidelines and literature on this topic are limited.

Secondly, telogen effluvium is described, with guidance on management. Again, the importance of special attention to dietary

intake of protein, exclusion of nutritional deficiencies and iron status assessment is stated explicitly.[6]

Thirdly, concerns around the injection site and local immune reactions, notably bullous pemphigoid, should prompt dermatological referral.

The benefits of GLPRA in inflammatory and autoimmune diseases is an area of ongoing research. Authors such as Buonanno *et al*.[7] have recently described the beneficial effect of these agents on psoriasis and psoriatic arthritis (PsA). A scoping review on the effects of GLPRA in rheumatological diseases such as rheumatoid arthritis, PsA, systemic lupus erythematosus, osteoarthritis and gout suggest GLP-1RAs may influence inflammatory pathways, oxidative stress and immune regulation across these conditions.[8] In inflammatory bowel disease (IBD), it is suggested that GLPRA use in patients with metabolic comorbidities is associated with fewer IBD-related surgeries/complications.[9]

We thank the authors for this thoughtful comment, and agree that their considered dermatological note would usefully complement the guideline. GLP-1 receptor agonists are now widely prescribed beyond specialist settings, and primary healthcare practitioners (HCPs) often have limited access to dermatological input.[10] Visible skin, hair and body changes, although some are self-limiting, can affect body image and treatment satisfaction. Anticipatory information supports adherence, and guidance helps HCPs distinguish expected changes from those requiring referral.

We are grateful for this suggestion and will consider incorporating a concise dermatological section in a future update of the guideline.

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