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VIEWPOINT

Pharmacological treatment for obesity: a scalable solution for South Africa

M Conradie-Smit,[1] JA Lubbe[2]

[1] Division of Endocrinology, Department of Medicine, Faculty of Medicine and Health Sciences, Stellenbosch University, South Africa
[2] Division of Surgery, Department of Surgical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University, South Africa

Corresponding author, email: *marlic@sun.ac.za*

Obesity is a disease with many complications, both directly and indirectly linked to adipose tissue excess and dysfunction. Type 2 diabetes (T2DM), stroke and cardiovascular disease account for the top causes of death nationally.[1] Our country is confronted with an urgent national emergency and, much like the HIV epidemic, the obesity crisis now demands rapid, scalable, and equitable intervention to protect the nation's health.

Scaled medical treatment - how we win epidemics

When HIV threatened to overwhelm SA's healthcare system, the response that ultimately saved millions of lives was medication effectively delivered through primary healthcare and community health workers, and a subsequent scalable public programme. The antiretroviral rollout demonstrated something essential: a chronic, progressive, biologically complex disease can be managed through scaling medical treatment at population level, even in a resource-constrained environment.[2]

Obesity management medications (OMMs), including GLP-1 receptor agonists (GLP-1 RA), semaglutide and liraglutide, and tirzepatide (a GLP1/GIP dual agonist [GLP-1/ GIP RA]), have now been registered in South Africa for the treatment of obesity. They address the underlying neurobiology of appetite dysregulation, produce sustained weight loss, carry independent cardiovascular and metabolic benefits and have a good safety profile.[3] They can, in principle, be prescribed by the general practitioner or at a district hospital or clinic, making OMMs the most scalable treatment option.

Access to obesity treatment

Less than 20% of South Africans have access to privately funded healthcare.[4] Metabolic and bariatric surgery (MBS) is performed almost exclusively in private facilities in urban centres and only three academic centres in SA offer the service, as MBS teams have to be trained and accredited to perform procedures safely.[5,6] Modern obesity treatment requires a multimodal approach – nutritional intervention, physical activity prescription, medical therapy and MBS consideration.[7] Obesity assessment and initiation of treatment should be scaled at primary healthcare level with referral of patients that will benefit from MBS.[8] In a country still navigating inequitable access to healthcare, a surgery-first approach to obesity treatment will continue to limit access to thousands of deserving patients.

Comorbidities: a strong argument for medicine

Comorbid diseases like T2DM, hypertension, obstructive sleep apnoea (OSA), and metabolic dysfunction-associated steatotic liver disease (MASLD) are justification for early operative intervention in obesity.[9] However, the same comorbidities are the ones that elevate operative risk. A patient with uncontrolled T2DM, hypertension and OSA requires detailed evaluation, anaesthetic assessment and access to intensive postoperative care to ensure operative safety.[10] Medical treatment, in contrast, can be initiated immediately without adding risk to an already compromised patient. GLP-1 RAs have independently demonstrated cardiovascular mortality benefit, glycaemic improvement,[11] blood pressure reduction,[12] improvement in OSA[13] and emerging benefit in heart failure[14] and chronic kidney disease.[15] Importantly, where significant cardiovascular benefit is seen years after MBS has allowed for a decrease in weight, OMM reports show a decrease in major cardiovascular events within 6 months after initiation.[16]

The particular complexity of South Africa's comorbidity landscape, notably HIV, is a significant concurrent concern. Over six million South Africans are taking antiretroviral therapy (ART). Interactions between ARTs, metabolic parameters and post-MBS anatomical changes are currently poorly characterised.[17] People living with HIV have elevated cardiometabolic risk, with dolutegravir-based ART causing weight gain that may reflect harmful visceral adiposity rather than immune recovery.[18,19] Evidence gaps exist regarding obesity complication trajectories by ART regimen and OMM integration into HIV care, particularly in South African public-sector settings.[20] Context-specific research is needed to inform appropriate obesity management pathways in people living with HIV, however, medical approaches likely represent the clinically responsible current option.

The role of mental health

Mental health aspects deserve emphasis in our context, especially as SA has limited services.[21] Depression, anxiety and binge eating disorder are highly prevalent among people living with obesity, and MBS in patients with undertreated psychiatric comorbidity is associated with significantly worse outcomes.[22] Medical treatment, however, can proceed concurrently with psychological management. GLP-1 RAs are increasingly recognised for their positive impact on mental wellbeing, with robust evidence refuting early concerns about suicidality, though long-term data is required. In contrast, MBS offers only short-to-medium-term mental health benefits, with long-term gains fading and some studies demonstrating slightly increased suicidality.[23]

The role of OMMs in the perioperative setting

Surgical candidates are encouraged to achieve improved mobility, muscle strength and metabolic parameters before they can safely proceed to theatre.[10] This preoperative phase is, in essence, a medical treatment programme to improve outcomes.[24] Initiating OMMs prior to surgery is considered ideal as preoperative weight loss reduces surgical risk, particularly in patients with very high body mass index (BMI) or severe comorbidities.[25,26] Evidence specifically examining preoperative OMM-induced weight loss and perioperative morbidity remains limited, though available data suggest benefit.[27,28] The impact of preoperative weight loss on overall weight loss outcomes following MBS remains contentious.[29] However, preoperative OMMs may help to predict surgical response, as they mimic post-surgery weight loss mechanisms.[25]

Both weight regain and suboptimal clinical response following MBS are important concerns, as they are linked to recurrence or partial remission of comorbidities. A higher preoperative BMI has been associated with weight gain and a worse weight trajectory after surgery.[30] Patients, especially those with a BMI > 50 kg/m^2, may therefore benefit from earlier initiation of OMMs rather than other interventions or revision surgery.[26,31] Post-MBS complications, like nutritional deficiencies, are well-recognised, whereas medical treatment could be individualised to mitigate risks.[32]

Medical treatment in multimodal obesity care

Body weight is homeostatically defended and weight loss triggers physiological adaptations that favour weight regain. Modern pharmacotherapy acts centrally on hypothalamic pathways that regulate appetite and reward, addressing the neurobiological substrate of the disease.[33]

Conclusion

None of this is an argument against MBS. The evidence supporting its efficacy is robust, and the national guideline appropriately includes it as a treatment option for specific indications.[34] A debate about the appropriate response to a national epidemic is not a debate about individual patient selection only; it is a debate about systems, equity, scale and sustainability. In a biologically complex, stigmatised disease, pharmacological options for obesity play a central role.

ORCID

M Conradie-Smit https://orcid.org/0000-0002-4252-6647
JA Lubbe https://orcid.org/0000-0001-8397-8685

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