

**The Potential Weight Loss Benefits of Tirzepatide: A Double-edged Sword?**Muhammad Taha Nasim<sup>1</sup>, Ayesha Ali<sup>2</sup>, Muhammad Tabish Nasim<sup>3</sup>

*Madam*, Tirzepatide, also known as Mounjaro, has become increasingly popular among diabetic patients due to its potential to aid in weight loss. However, with the growing demand for this medication for its weight-loss benefits, there are apprehensions that it may soon become scarce.

Tirzepatide, a dual Glucagon-like peptide (GLP-1) and Glucose-dependent insulinotropic polypeptide (GIP) receptor agonist is an injectable synthetic peptide with glucose-lowering effects.<sup>1</sup> It stimulates first- and second-phase insulin secretion, and reduces glucagon levels.

Since its approval by the FDA in late 2021, Tirzepatide has become increasingly popular among diabetic patients as it has reported a mean decrease of 1.53% in patients' HbA1C levels in the first 40 weeks of use, which is higher than other drugs available in the market.<sup>1,2</sup> Many patients also reported significant weight loss after starting the medication, which has led to increased demand for the drug.

While this drug is yet to be approved by FDA for weight loss, it is expected that it will be approved for weight loss by mid of 2023. Despite that, some doctors already consider it off-label as a weight loss drug in people not suffering from Diabetes.<sup>3</sup> This can lead to an increased demand for the drug as seen earlier in the case of Ozempic (semaglutide) in 2022 leading to an acute shortage.<sup>4</sup> Pharmacies are already reporting low supplies of Tirzepatide, and some patients are facing trouble in getting their prescriptions filled.<sup>5</sup>

For diabetic patients who are relying on Tirzepatide to manage their blood glucose levels and promote weight loss, this shortage could have serious consequences. Patients who are unable to acquire the drug may be forced to switch to other medications or try alternative treatments,

which may not be as effective.

In conclusion, the recent surge in demand for Tirzepatide has led to concerns about a potential shortage of the medication. While the drug has shown promise in helping diabetic patients improve glycaemic control and promote weight loss, patients need to have access to the medication when they need it. To help mitigate the shortage of Tirzepatide, some experts are calling for increased production of the drug and improved distribution channels to ensure that patients can continue to benefit from this promising treatment option.

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