Semaglutide: new dawn for diabetics

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Madam, the growing prevalence of diabetes and obesity in Pakistan demands an optimal treatment plan to simultaneously manage the root pathologies. Semaglutide is a novel glucagon-like peptide-1 receptor agonist (GLP-1 RA) that was approved by the Food and Drug Administration (FDA) in 2017 for the treatment of type 2 diabetes and has recently, in 2020, approved for cardiovascular (CV) risk reduction in adults with T2D and known heart disease. Semaglutide has proved beneficial in terms of inducing weight loss while actively reducing blood glucose and blood pressure. It is also the first of its class to be available in an oral form in addition to the standard subcutaneous (SC) therapy.

Results from various research trials indicate a superiority of Semaglutide not only among other GLP-1 RA of its class but also over insulin glargine and Sitagliptin inducing significant weight loss and reducing HbA1c and systolic blood pressure.[1] It does this while continuing to offer a favorable CV profile. Studies like Sustain 6 and Pioneer 6, have demonstrated a non-inferiority and safety of SC and oral Semaglutide in CV health. At the same time while we await the completion of the SOUL and SELECT trials to confirm an added potential superiority in improving CV outcomes.[2] In conclusion, Semaglutide can safely be used in patients with T2D as a monotherapy or as an add-on to metformin or insulin. The Diabetes Canada guidelines 2018 recommend using incretins like GLP1 RA, and/or Sodium-glucose transport protein 2 inhibitors (SGLT2i) when weight loss and lower risk of hypoglycemia are a targeted patient priority.[3] However, Helena et al. have demonstrated more significant reductions in HbA1c and continued weight loss beyond week 26 up to week 52, with Semaglutide signifying its superiority over standard empagliflozin therapy.[4]

Semaglutide, although well-tolerated, has some side effects, including dizziness, headache, and gastrointestinal upset[3,5] that can be reduced by gradually increasing the dose.[3] Potential side effects of pancreatitis and diabetic retinopathy, however, require physicians to warrant caution as such side effects may yet have been underreported or understudied.[1]

Nonetheless, the beneficial effects of Semaglutide, a once-weekly SC dose, and the alternative option of an oral formulation offer ease of use for the patient. However, the lack of research and cost-effectiveness have limited its use and availability in Pakistan. Therefore, ample work must be done to introduce this important drug in our market and routine practice.

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DOI: 10.47391/JPMA.7558

Submission completion date: 20-08-2022
Acceptance date: 02-11-2022

Disclaimer: None to declare.

Conflict of Interest: No conflict of interests.

Funding Disclosure: None to declare.

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