FDA Approves Zepbound for Obstructive Sleep Apnoea: A Breakthrough in OSA Treatment

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What's in today's article?

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- Obstructive Sleep Apnoea (OSA)
- How Zepbound Works?

Why in News?

The FDA has approved Tirzepatide, marketed as Zepbound, for treating Obstructive Sleep Apnoea (OSA). The drug is recommended alongside a low-calorie diet and increased physical activity for individuals with moderate to severe OSA.

This approval highlights Tirzepatide's diverse applications beyond managing type-2 diabetes and obesity, as fat accumulation around the neck contributes to throat muscle laxity causing OSA.

It also marks the first drug treatment option for certain patients with obstructive sleep apnoea.

Obstructive Sleep Apnoea (OSA)

- **Types of Sleep Apnoea**:
  - **Obstructive Sleep Apnoea (OSA):** The most common form, caused by physical blockage of the airway.
  - **Central Sleep Apnoea**: Occurs when the brain fails to send proper signals to muscles controlling breathing.
  - **Complex Sleep Apnoea Syndrome**: A combination of OSA and central sleep apnoea.
- **About OSA**
  - Obstructive Sleep Apnoea (OSA) is a sleep disorder characterized by repeated interruptions in breathing during sleep due to the relaxation of throat muscles.
  - These interruptions, or apneas, can lead to a choking sensation, causing the person to wake up briefly and disrupt sleep quality.
  - As a result, individuals with OSA often feel fatigued during the day despite having a full night's sleep.
- **Link Between Obesity and OSA**
  - As per the experts, smaller lungs due to abdominal fat and a floppy tongue are key contributors to OSA, emphasizing obesity as a significant risk factor.
- **Impact of Fat Accumulation**
  - Fat around the abdomen reduces lung size, increasing the risk of airway blockage.
  - Neck fat and fat deposits on the back of the tongue can obstruct airways during sleep.
- **Prevalence**: Over 50% of OSA patients are obese, and 25% are overweight.
- **Other risk factors**
  - Other risk factors include aging, smoking, and a family history of sleep apnoea.
  - Symptoms of OSA include loud snoring, frequent waking during the night, and excessive daytime sleepiness.
- **Current Treatment for OSA**
  - Patients with OSA commonly use a positive airway pressure machine, which delivers pressurized air to keep the airway open during sleep.
  - Medications may also be prescribed to improve sleep quality.
  - Weight loss, lifestyle changes, and medications may also be recommended.
  - However, no drug has been available specifically for treating OSA until now.

How Zepbound Works?

- Zepbound activates the receptors of hormones secreted by the intestine, such as **glucagon-like peptide (GLP-1)** and **glucose-dependent insulinotropic polypeptide (GIP)**, which reduces appetite and food intake.
  - Manufactured by Eli Lilly and Co., Zepbound is approved for individuals who are obese or overweight with related health conditions like type 2 diabetes, high cholesterol, or high blood pressure.
- Studies suggest that by reducing body weight, Zepbound also improves OSA.
  - Experts noted that excess body fat contributes to diseases like OSA.

- Zepbound’s weight-loss properties are being linked to benefits in multiple conditions, with additional mechanisms under study.

Q.1. How does Zepbound help in treating Obstructive Sleep Apnoea (OSA)?

Zepbound activates intestinal hormone receptors, reducing appetite and promoting weight loss. This decreases fat accumulation around the neck and abdomen, alleviating airway blockage during sleep, thus improving symptoms of Obstructive Sleep Apnoea (OSA).

Q.2. Why is Zepbound’s approval significant for OSA patients?

Zepbound is the first FDA-approved drug specifically for OSA treatment. It offers an alternative to traditional methods like CPAP machines, particularly benefiting obese individuals by addressing the root cause of OSA through weight loss.

Source: IE | TOI