VIA MEDICA

LETTER TO THE EDITOR

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GLP-1 receptor agonists' Role in the treatment of binge eating and bulimia nervosa

Dear Editor,

Bulimia nervosa (BN) affects up to 1% of the global population, leading to a major reduction in quality of life [1]. This condition is characterized by episodes of binge eating, defined as consuming large amounts of food in a short time, accompanied by a perceived loss of control over eating [2]. Currently, cognitive-behavioral therapy (CBT) is recommended as a main therapeutic option, achieving remission in up to 50% of BN cases. In addition to this, the recognized method of treatment for BN is pharmacotherapy with Selective Serotonin Reuptake Inhibitors (SSRIs), like fluoxetine [3]. Additionally, lisdexamfetamine and topiramate are sometimes used to manage binge eating. However, these drugs are not always optimal. Lisdexamfetamine is a known abuse-potential and topiramate, commonly prescribed off-label for binge eating, has numerous contraindications [4]. The effectiveness of these therapies is not always satisfying, highlighting the need to explore alternative methods for BN. One of the most promising methods represented by recent studies is the use of glucagon-like peptide-1 (GLP-1) receptor agonists [4].

Animal studies have shown that GLP-1 activity in the hypothalamus is closely linked to serotonin (5-HT) pathways, which are responsible for binge eating behaviors. These studies have demonstrated that the hypophagic effects of 5-HT in the hindbrain are dependent on central GLP-1 receptor signaling [5]. The interaction between 5-HT and GLP-1 is responsible for the increase in proopiomelanocortin (POMC) and cocaine- and amphetamine-regulated transcript (CART) neurons activity, which enhance signals of fullness while simultaneously lowering the activity of neuropeptide Y (NPY) and agouti-related peptide (AgRP) neurons, thus decreasing appetite [5].

A recent study examined 44 obese, non-diabetic individuals who experienced episodes of binge eating. Patients were divided into a control group and a study group. The first one relied solely on diet and exercise, while the study group also received liraglutide [6]. A group of patients receiving liraglutide observed a significant reduction in the number of binge eating episodes compared to the control group [6]. In addition, patients treated with liraglutide exhibited greater weight loss [6].

An even more recent human study divided participants into three groups: those prescribed semaglutide, those receiving either topiramate or lisdexamfetamine, and those receiving a combination of semaglutide with topiramate or lisdexamfetamine [4]. Patients receiving semaglutide alone showed a greater reduction in Binge Eating Scale (BES) scores compared to the other groups. Even combination therapy with semaglutide and another drug was not superior to semaglutide monotherapy [4].

Since both binge eating disorders and bulimia nervosa are extremely important medical problems in today's world, it is crucial to identify additional therapeutic options that can complement psychological methods. Current research shows that GLP-1 receptor agonists may be a promising form of effective treatment for patients struggling with binge eating episodes. Thus, it makes great sense to continue to explore this topic and conduct further research to fully realize the therapeutic potential of GLP-1 agonists.

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