Abstract 531

NUTRITIONAL DEFICIENCIES IN PATIENTS TREATED WITH GLP-1A MEDICATIONS

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Background

GLP-1a medications, commonly used for diabetes and obesity, lead to significant weight loss(over 20%), similar to bariatric surgery. However, they are associated with gastrointestinal side effects(e.g., diarrhea, nausea), leading to malabsorption of vitamins and minerals. Additionally, food intolerances caused by these drugs may result in chronic dietary changes, making it difficult for patients to maintain a nutrient-rich diet. This increases the risk of nutritional deficiencies. While bariatric patients have guidelines for managing deficiencies, there are no such guidelines for GLP-1a users, creating a clinical gap.

Objectives

This study aims to develop evidence-based guidelines for monitoring and treating nutritional deficiencies in patients using GLP-1a drugs.

Methods

A retrospective analysis of Maccabi Healthcare Services data examined nutritional deficiencies in patients treated with GLP-1a medications(Semaglutide, Liraglutide, Dulaglutide, Lixisenatide, Exenatide) from 2015 to 2024. Iron, folate, vitamin D, vitamin B12 deficiency, decreased hemoglobin and ferritin, and elevated PTH for hyperparathyroidism were assessed after 6, 12, and 24 months. Data on diabetes status and supplement use were also included. Only patients without pre-existing deficiencies were considered.

Results

Over 10 years, 117,814 patients received GLP-1a treatment for at least six months; 58% had diabetes, and 42% used the medication for weight loss. 83,057 received treatment for at least one year, and 58,759 for at least two years. Significant deficiencies were found and manifested in a decrease in iron(31% at 6 months, 30% at 12 months, 31% at 24 months), folic acid(49%, 51%, 57%), vitamin B12(18%, 21%, 20%), ferritin (8%, 16%, 14%), vitamin D(19%, 18%, 19%), hemoglobin (7%, 9%, 10%) and increased PTH (18%, 19%, 22%). Semaglutide was linked to the highest deficiency rates. Diabetic patients had more deficiencies than those treated for weight loss. 61% of deficient patients purchased multivitamin supplements. The study is ongoing, and further analyses are conducted for additional results.

Conclusions

GLP-1a drugs cause early and persistent nutritional deficiencies. Diabetic patients are more likely to experience these deficiencies, though this may be influenced by pre-existing deficiencies in patients with obesity, excluded from the study. A significant portion of patients with deficiencies did not purchase supplements, indicating a knowledge gap in clinical recommendations. It is recommended to assess nutritional deficiencies before starting GLP-1a treatment, monitor regularly, and advise high-dose supplementation during treatment.

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