

Cannabis and weight loss drugs found to impact nuclear medicine gastrointestinal scans

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The use of marijuana and new weight loss pharmaceuticals can have an impact on gastric emptying scans commonly used to evaluate patients



with gastrointestinal complaints. With the increased usage of these drugs, physicians need to be more attuned to their side effects to perform gastric emptying scans most effectively, according to research published in the *Journal of Nuclear Medicine Technology*.

"Gastric emptying scintigraphy remains the primary imaging modality for evaluating symptoms of gastroparesis such as <u>abdominal pain</u>, bloating, nausea, loss of appetite, and more," said Rutger S. Gunther, MD, MPH, Uniformed Services University of the Health Sciences, Bethesda, Maryland, and Brooke Army Medical Center, San Antonio, Texas.

"Understanding the effects of cannabis and weight loss drugs on gut motility—that is, the movement of food throughout the body—is essential for nuclear medicine providers."

With the expanding legalization of cannabis, usage has become more common in the United States. As of 2023, 38 states allow the medical use of cannabis, 23 states allow the recreational use of cannabis, and nine states allow low delta-9-tetrahydrocannabinol (THC)/high cannabidiol (CBD) ratio cannabis. Although gastroenterology literature has described the effect of cannabinoids on the gut, there is a lack of research in the field of nuclear medicine.

Historically, cannabis has been associated with decreased gastrointestinal motility, although recent research strongly suggests a paradoxical clinical improvement in gastroparesis. A review of the literature found limited evidence that cannabinoids result in significant delays in gastric emptying in chronic users.

Any significant delays would likely be limited to instances of very recent intake. As such, <u>social history</u> should be reviewed for all forms of cannabinoids, and patients should be advised to avoid cannabinoid intake



for at least 6 hours prior to a gastric emptying scan to avoid the small chance of a false positive exam. The wide array of products available to patients makes cannabis research very challenging when trying to measure its physiologic effects on the gut.

Glucagonlike peptide-1 (GLP-1) receptor agonists (RAs) (e.g., Ozempic or Wegovy), are being increasingly used for glycemic control in patients with diabetes and for weight loss and weight management in obese subjects. There has been recent public awareness of the potential of GLP-1 RAs to delay gastric emptying and cause gastroparesis. By delaying gastric emptying, these agents can complicate the clinical evaluation of patients on these drugs by affecting diagnostic testing for gastroparesis.

Study authors suggest that patients should be assessed for symptoms of gastroparesis before starting treatment with a GLP-1 RA. If symptoms are present, physicians should consider obtaining a gastric emptying test to document delayed gastric emptying before treatment. If symptoms of gastroparesis develop while on a GLP-1 RA, the medication should be stopped to see if symptoms resolve. If they do not, evaluation for gastroparesis is suggested while the patient has stopped taking the GLP-1 RA medication.

"Physicians, <u>health care providers</u>, and medical staff caring for patients who use cannabis or GLP-1 RA <u>weight loss</u> drugs should be familiar with the gastric <u>side effects</u> of these popular therapeutic agents," noted Gunther.

More information: Rutger S. Gunther et al, Got the Munchies for an Egg Sandwich? The Effects of Cannabis on Bowel Motility and Beyond, *Journal of Nuclear Medicine Technology* (2024). DOI: 10.2967/jnmt.123.266816



Henry P. Parkman et al, Glucagonlike Peptide-1 Receptor Agonists: The Good, the Bad, and the Ugly—Benefits for Glucose Control and Weight Loss with Side Effects of Delaying Gastric Emptying, *Journal of Nuclear Medicine Technology* (2024). DOI: 10.2967/jnmt.123.266800

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