




Name: Balwinder Kumar |



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NM GASTRIC EMPTYING

Collected on December 28, 2022 3:21 PM

If you have questions or concerns regarding your test results, contact the clinician who ordered the test. 

Results

Impression

IMPRESSION:

1. Markedly abnormal solid-phase gastric emptying study. There is pronounced retention of activity within the stomach on imaging up to 4 hours post meal consumption, suggesting severe functional gastroparesis vs. a partial gastric outlet obstruction.
2. Of note, there are multiple factors potentially impacting the sensitivity/specificity of these results (as detailed above), including the patient's inpatient status, concurrent medications, consumption of only a portion of the standardized meal, and limited patient emesis during this study.

Electronically Signed by:  12/28/2022 3:51 PM

Narrative

PROCEDURE: NM GASTRIC EMPTYING, 12/28/2022 10:14 AM

STUDY: Radionuclide Gastric Emptying Study

CLINICAL INDICATION: 71-year-old female inpatient with a history of a recent laparoscopic surgery for gallbladder carcinoma, abdominal pain, early satiety, fevers, and recurrent nausea/vomiting. Evaluation for potential delayed gastric emptying/gastroparesis.

COMPARISON: CT of the abdomen and pelvis on 12/24/2022.

TECHNIQUE: Following the oral administration of 1.0 mCi of Tc-99m Sulfur Colloid mixed with eggs and provided with a standard meal (consisting of egg beaters, water, toast, and jelly), serial dynamic images of the abdomen were acquired in anterior and posterior projections for 1 hour. In addition, serial static images of the abdomen were acquired in anterior and posterior projections immediately, at 1 hour, at 2 hours, and at 4 hours. All static images were subsequently processed on a workstation with region-of-interest analysis to facilitate the



summation of anterior and posterior images (via geometric mean). The percentage of the administered activity remaining within the stomach was calculated for each imaging time point.

FINDINGS: The patient reportedly consumed only a portion (approximately 50%) of the standardized meal. On the immediate post-meal static and dynamic images, there is expected accumulation of radiotracer within the stomach (predominantly within the gastric fundus/body), with minimal/limited progression of activity into the small bowel during the first hour of dynamic imaging. There is no clear evidence of gastroesophageal reflux during the first hour of dynamic imaging.

Over time, there is progressive migration of activity out of the stomach and into the small bowel. However, there is substantial activity remaining within the stomach at all imaging time points. Specifically, based upon the geometric mean of the anterior and posterior views, remaining radiotracer activity within the stomach is measured at 100.6% at 1 hour (the normal range is 37-90%), 74.9% at 2 hours (the normal range is 30-60%), and 62.7% at 4 hours (the normal range is less than 10%). The measurement at 1 hour of slightly over 100% represents a technical artifact (in the context of little gastric emptying between 0 and 60 minutes). Regardless, all the patient's measurements are markedly elevated, and this pattern of findings suggests severe functional gastroparesis vs. a partial gastric outlet obstruction.

Of note, this patient was an inpatient at the time of this study, and is currently taking multiple medications that may impact patient's gastric emptying performance (including Reglan, Protonix, oxycodone, etc.). The patient consumed only a portion of the standardized meal. Further, the patient reportedly experienced emesis (small volume) between the 2-hour and 4-hour image acquisitions. All of these factors may significantly impact the sensitivity/specificity of these results.

Ordering provider:



Reading physician

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Result date: December 28, 2022 3:51 PM

Result status: Final

