Austin Radiological Association

Marshmallow/ Bagel- Barium Swallow Protocol

Fluoro Time Target Limit- 5.0 min

(These exams will be ordered by either Dr. Lough or Dr. Abikaled)

Schedule only patients who are presenting for preoperative evaluation for reflux surgery

Preparation:

*Patient will need to: BRING 3 NORMAL MARSHMALLOWS AND A WHOLE PLAIN BAGEL TO THE EXAM

*FOR COMFORT DURING EXAM WE SUGGEST NO FOOD OR DRINK FOR **4 HOURS** BEFORE EXAM.

Supplies: Plain Bagel, Plain Marshmallow, Thin Barium, 1-cup with mL measurements, straw, anatomical side marker placed on Image Intensifier

****Ask the site Radiologist if he or she would prefer to be Present During this exam****

No video recording needed.

Share the following information with the site radiologist

Fill out the worksheet completely.

1) The number of stripping waves with each patient position and substances swallowed.
2) Comment on the stomach. Any gross pathology and how well the stomach is emptying.
3) C-loop and duodenal position. Normal or malrotated.
4) Hiatal hernia. Comment if you see a hiatal hernia. Write “none” if you do not see one. The radiologist will measure the length of any hiatal hernia.

**This will prompt the Radiologist to include the gastric anatomy and to measure the length of the hiatal hernia on his / her report to the referring doctor.

*Adequate clearance is achieved with passage of barium bolus with two or fewer stripping waves.

** Failure is defined as incomplete progression of peristaltic contractions or more than two stripping waves to clear the food bolus.

*Report to the reading Radiologist, the number of waves each swallow required for the bolus to go through the GE junction.

Exam Instructions:

1. Patient is to swallow a single large bolus of thin barium in the upright, LPO, position under fluoroscopy and video recording. Watch the tail of the peristaltic wave from pharynx to the stomach.

*Count the number of stripping waves it takes to pass the bolus through the gastroesophageal junction into the stomach.
*Adequate clearance is achieved with passage of barium bolus with two or fewer stripping waves.
*Take **1** exposure of the bolus as it passes through the GE junction.

2. Patient is then placed in the prone position at 15 degrees Trendelenburg.
a) Patient is challenged with a food bolus using a generous bite from a regular marshmallow, followed by a swallow of thin barium. The patient is allowed to chew the marshmallow. Watch the tail of the peristaltic wave and count the number of stripping waves it takes to pass the bolus through the gastroesophageal junction into the stomach.
*Take **1** exposure of bolus passing through the GE junction.

* b) Patient is then given a normal sized bite of a bagel. The patient is allowed to chew the bagel. Follow this with a swallow of thin barium. Watch the tail of the peristaltic wave and count the number of waves it takes to pass the bolus through the gastroesophageal junction into the stomach.

*Take **1** exposure of the bolus passing through the GE junction.
*Adequate clearance is achieved with passage of bagel bite bolus with two or fewer stripping waves.

3. Patient is then placed in the prone position at 0 degrees.
a) Patient is challenged with a food bolus using a generous bite from a regular marshmallow, followed by a swallow of thin barium. The patient is allowed to chew the marshmallow. Watch the tail of the peristaltic wave and count the number of waves it takes to pass the bolus through the gastroesophageal junction into the stomach.

*Take **1** exposure of bolus passing through the GE junction.

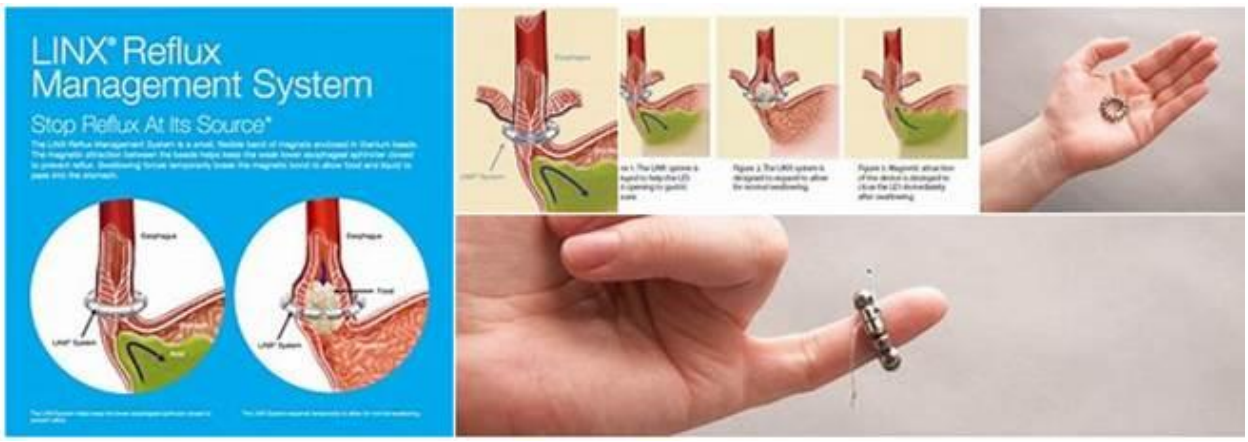
* b) Patient is then given a normal sized bite of a bagel. The patient is allowed to chew the bagel. Follow this with a swallow of thin barium. Watch the tail of the peristaltic wave and count the number of waves it takes to pass the bolus through the gastroesophageal junction into the stomach.

*Take **1** exposure of the bolus passing through the GE junction.
*Adequate clearance is achieved with passage of bagel bite bolus with two or fewer stripping waves.

4. Take **1** Supine image of all anatomy that is filled with barium. Ensure that the duodenal sweep is filled to confirm presence of or lack of malrotation or pathology.

Give more barium if necessary.

*Also, report to the Radiologist any abnormalities or pathology such as hiatal hernia, Schatzki's ring, aspiration, cricopharnyngeus narrowing, Zenker's diverticulum, webs, motility disorders, etc.…
*Do NOT actively check for reflux. If spontaneous reflux does occur, report it to the Rad.
*Do **NOT** give the patient a barium tablet.
*Do NOT use any rapid imaging.



- Please label the images with patient position and what they are swallowing.

FLBAMB Findings for the Radiologist

1. Upright-LPO-Barium Only # of waves _____
2. Prone-15-degree Trendelenburg-Marshmallow & Barium # of waves _____
3. Prone-15-degree Trendelenburg-Bagel + Barium # of waves _____
4. Prone-Zero Degrees-Marshmallow + Bagel # of waves _____
5. Prone-Zero Degrees-Bagel + Barium # of waves _____
6. Stomach-anatomy/emptying-_____
7. Duodenal sweep-_____
8. Hiatal hernia- _____

Created March 14, 2018, with guidance by Dr. Sheneman

Reviewed January 23, 2024