Austin Radiological Association-CIC ONLY

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 Linx procedure*

*For Post-Op Linx- Barium Swallows- Contact the referring Dr. for exact procedure instructions, on a case-by-case basis-Per Dr. Abikaled. (8-22-2019)

**Preparation:** There is no physical prep required for this exam. The patient may eat, drink and take medications as usual.

**Supplies:** Plain Bagel, Plain Marshmallow, Thin Barium, 1-cup, 1-straw

Anatomical side marker placed on Image Intensifier

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

*Video recording is optimal for this exam

**Exam Instructions:**

*Please see changes below for imaging the gastroesophageal junction, stomach and duodenal sweep-do not have patient return for an upper GI on another day.

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 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 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 which can be chewed up, followed by 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 which can be chewed up, followed by 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.
** Failure is defined as incomplete progression of peristaltic contractions or more than two stripping waves to clear the food bolus.

*Have the patient in the RAO position. Have them drink the rest of the cup of thin barium (approximately 6 oz.) in order to fill out the stomach. Take 2-4 images of barium passing through the gastroesophageal junction.
*Have the patient engage their abdomen muscles (Valsalva maneuver) to evaluate for a hiatal hernia, on the last swallow of barium. If a hernia is seen, take adequate images of the hernia.
*Have the patient roll onto their right side, then supine, then LPO and then supine again. This should coat the stomach adequately.
*With the patient in the supine position. Take an overall image of the stomach to include the duodenal sweep. Note: Dr. Abikaled is not interested in gastric mucosal detail. He needs a gross look at the stomach, duodenum and sweep, as a road map for surgery.

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

*Also, report to the Radiologist any pathology such as hiatal hernia, Schatzki’s ring, aspiration, cricopharyngeous 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.
*Do all above imaging on the same day together as one exam.

*Have the patient drink extra fluids over the next 36-48 hours, to reduce constipation from the barium.

*These are the minimum images needed to demonstrate the proper anatomy for this exam. When deemed necessary, more images may be taken. Care should be taken to minimize patient and technologist exposure.

Created March 14, 2018 with guidance by Dr. Sheneman
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