GASTROINTESTINAL PATHOLOGY GROSSING GUIDELINES

Specimen Type: ESOPHAGOGASTRECTOMY

Procedure:

- Portions of the esophagus are usually resected to remove neoplasms, and less frequently because of strictures.

1. Measure length of segment and diameter or circumference. Make sure to stretch the esophagus when measuring its length because it shrinks.
2. Measure the length of attached proximal stomach, its diameter or circumference at the distal gastric margin, and wall thickness.
3. Ink adventitial surface of the esophagus at the lesional site.
4. Describe external surface noting areas of retraction, induration, extension of tumor, perforation, presence of enlarged lymph nodes.
5. Open esophagus longitudinally. Record thickness of wall. Describe appearance of the mucosa, noting any areas of ulceration, glandular mucosa (which appears pink or tan), tumors, and the degree of narrowing of the lumen caused by such lesions.
6. Measure and describe appearance (size, color, texture) of ulcers, tumors and strictured segments. Describe whether the lesion is circumferential or how much (%) of circumferential involvement. Measure the distance from such lesions to the margins of resection and/or GE junction.
7. If a tumor or ulcer involves GE junction, describe where the midpoint of the lesion is relative to GE junction.
    a. Midpoint is located at GE junction
    b. Midpoint is in the distal esophagus but tumor involves GE junction (measure the distance of midpoint from GE junction)
    c. Midpoint is in the proximal stomach but tumor involves GE junction (measure the distance of midpoint from GE junction)
8. Stretch and pin the opened esophagogastrectomy on a board and fix in 10% formalin. If the tumor is large, make several cuts to allow proper fixation.
9. After fixation, cut through tumor or ulcer to assess depth of invasion through esophageal wall.
10. If no tumor is grossly identified (which is often the case after neoadjuvant therapy of the GEJ tumors), then generally the entire ulcerated area is blocked off and submitted.

Gross Template:

Labeled with the patient's name (***), medical record number (***), designated ***, and received [*fresh/in formalin*] is an [*intact/disrupted*] esophagogastrectomy with [*two stapled ends, one opened and one stapled end, etc.*]. [*Indicate orientation, if provided*]. The esophagus measures *** cm in length x *** cm in average open circumference [*provide range if there is a significant variation*], with a *** cm average wall thickness. There is a *** cm open circumference at the gastroesophageal junction. Adventitial soft tissue extends up to *** from the esophageal wall. The stomach measures *** cm in length along the greater curvature, *** cm in length along the lesser curvature, *** cm in open circumference at the distal resection margin, and *** cm in average wall thickness. The attached gastric fibroadipose tissue measures *** x *** x *** cm. [*Describe other adherent structures*].

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The adventitial surface of the esophagus is remarkable for [*describe, if applicable*]. The mucosal surface is remarkable for a [*describe lesion: size (__ x __ x __ cm), circumferential involvement, shape (e.g. polypoid, ulcerated, fungating), color, consistency (e.g. soft, firm, friable), associated ulceration*]. Sectioning reveals the lesion to have a [*describe cut surface of lesion and maximum thickness*]. The center of the lesion is located [*at, proximal to, distal to*] the gastroesophageal junction and is ***cm from the gastroesophageal junction. The lesion measures *** cm from the proximal margin, *** cm from the gastric margin, *** cm from the esophageal adventitial margin, *** cm from the omental margin at the greater curvature (*if applic*able), and *** cm from the omental margin at the lesser curvature (*if applicable*).

The remainder of the esophageal mucosa is [*tan and glistening with unremarkable longitudinal folds* or *describe any additional lesions, such as ulcers/erosions, polyps, anastomoses, smooth areas with loss of folds, fibrotic areas, etc.*]. The remainder of the gastric mucosa is [*tan, rugated, glistening, and unremarkable* or *describe any additional lesions, such as ulcers/erosions, polyps, smooth areas with loss of folds, fibrotic areas, etc.*]. *** of lymph nodes are identified ranging from *** to *** cm in greatest dimension.

All identified lymph nodes are entirely submitted. [*The tumor/fibrotic area is entirely submitted (if applicable, otherwise skip to next sentence)*] Representative sections of the remaining specimen are submitted.

Ink key:
Black –esophageal adventitial margin
Blue – gastric serosa adjacent to tumor
[*Additional inking description if proximal/distal margins taken perpendicularly*]

Cassette Submission: 15-20 cassettes

- Proximal esophageal resection margin, shave
  - Submit perpendicular section if lesion is close to margin
- Distal gastric resection margin, shave
  - Submit perpendicular section if lesion is close to margin
  - If lesion is a grossly recognizable mass, shave or perpendicular sections from nearest margin area are adequate
  - If lesion is diffuse type cancer (such as signet-ring cell carcinoma), the entire margin should be submitted
- One cassette per 1 cm of lesion (OR at least 5 sections of tumor OR if small enough, entirely submit)
  - Show maximum depth of invasion
    - Show nearest approach of tumor to esophageal adventitial margin or gastric serosal surface
  - Show relationship to unremarkable mucosa
- One cassette of uninvolved esophagus
- One cassette of uninvolved stomach
- Cassettes sampling any additional pathology in the gross description (ulcers, polyps, etc.)
- Omental margin (greater or lesser curvature), shave, if tumor is mainly located in the stomach

- Submit all lymph nodes identified and adventitial soft tissue
    - Separate gastric and esophageal lymph nodes
    - No number is recommended for esophageal or gastroesophageal junction cancer. Usually the entire adventitial soft tissue is submitted for lymph nodes.
    - At least 16 regional lymph nodes are **suggested** for gastric carcinoma.
- **Note: If no gross tumor is present, block out ulcerated/fibrotic area and entirely submit**