Lesson 25: Acute Pediatric Dysphagia: When Ingestion of a Foreign Body or Caustic Material Is Not the Cause

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Question 25-1. This question emphasizes that when a child is discovered to have a right aortic arch with mirror-image branching of the great vessels (D), the radiologist must alert the referring physician that the child should be screened for congenital heart disease, particularly tetralogy of Fallot. So (D) is the correct answer.

Question 25-2. This question alludes to underlying anatomic abnormalities that may be present in most children who develop gastric volvulus. The underlying anatomic abnormalities include eventration of the diaphragm (A), intestinal malrotation (B), congenital diaphragmatic hernia (D), paraesophageal hernia (E), hiatal hernia, wandering spleen, and asplenia, but not situs inversus (C). So (A), (B), (D), and (E) are true, but (C) is false and the exception; and (C) is the correct answer.

Question 25-3. This question alludes to a specific radiographic finding in which the esophagram of a 9-year-old girl with dysphagia shows a “beak-like” narrowing of the distal esophagus. This radiographic finding is found in achalasia (B). So (B) is the most likely diagnosis, and (B) is the correct answer.

Question 25-4. This question is based on another radiographic finding in which the esophagram of a 14-year-old boy with dysphagia shows a “ringed esophagus.” The ringed esophagus is due to multiple esophageal strictures, usually less than 5 cm in length, in a patient with eosinophilic esophagitis (A). Other radiographic findings of eosinophilic esophagitis include a normal esophagus and a small-caliber esophagus (<2 cm in diameter). So (A) is the most likely diagnosis, and (A) is the correct answer.

Question 25-5. This question refers to the most likely diagnosis of a diffuse small-caliber esophagus (<2 cm in diameter) on an esophagram performed on a 15-year-old girl with dysphagia for several weeks. Focal, but not diffuse, narrowing of the esophagus is expected in children with oropharyngeal dysphagia (A), an esophageal duplication cyst (B), and a vascular ring (D). So (A), (B), and (D) are false. The caliber of the esophagus in achalasia (C) is either normal or enlarged. Thus (C) is false. However, one of the abnormalities of eosinophilic esophagitis (E) on an esophagram is a diffusely small-caliber esophagus. So (E) is the most likely diagnosis, and (E) is the correct answer.
Question 25-6. This question speaks to the major cause of morbidity in a child with oropharyngeal dysphagia, which is aspiration with recurrent pneumonia (D). In oro-esophageal dysphagia, regardless of the cause, the pharynx fails to transfer food and liquids successfully from the mouth to the esophagus leading to dysphagia, and also fails to protect the airway from aspiration leading to recurrent pneumonia. So (D) is the correct answer.

Question 25-7. This question regards several important statements about gastric volvulus in the pediatric population. Fortunately, it is rare (A), caused by a twist of the stomach with associated gastric obstruction. So (A) is true. Most cases present clinically with nonbilious emesis, epigastric pain, and abdominal distention (B). Thus (B) is true. If unrecognized, it can lead to gastric infarction and perforation. Organoaxial and mesenteroaxial are the 2 subtypes of gastric volvulus. In the organoaxial subtype, the greater curvature rotates superior to the lesser curvature (C), and in the mesenteroaxial subtype, the gastric rotation causes the pylorus to lie superior to the gastroesophageal junction (D). So (C) and (D) are true. In the pediatric population, the organoaxial subtype is less, not more, common than the mesenteroaxial subtype (E). Thus (E) is false, and (E) is the correct answer.

Question 25-8. This question alludes to a clinical vignette in which a 10-year-old boy presented with intermittent vomiting and dysphagia with occasional regurgitation of undigested food. An esophagram was normal. All of the options are capable of causing dysphagia, but a normal esophagram would be found in only achalasia (B) and eosinophilic esophagitis (E). So right aortic arch with an aberrant left subclavian artery (A), esophageal duplication cyst (C), and oropharyngeal dysphagia (D) are unlikely diagnoses. The symptom of occasional regurgitation of undigested food suggests achalasia (B) rather than eosinophilic esophagitis (E). In this boy, manometry should be performed to look for absent peristalsis in the distal esophagus. So (B) is the most likely diagnosis, and (B) is the correct answer.

Question 25-9. This question calls attention to a condition associated with dysphagia lusoria, which is a left aortic arch with an aberrant right subclavian artery (A). Normally, this vascular anomaly is asymptomatic, but in a minority of cases the aberrant right subclavian artery exerts enough compression on the esophagus to cause dysphagia. So (A) is the correct answer.

Question 25-10. This question draws attention to the most common location of an esophageal duplication cyst, which is the lower third of the esophagus (C). On an esophagram, an esophageal duplication cyst may produce a circumscribed filling defect external to the esophageal mucosa. So (C) is the correct answer.

Answer Key for Volume 37 # 25:

1. D
2. C
3. B
4. A
5. E
6. D
7. E
8. B
9. A
10. C