Foreign Body Ingestions Quiz

Gregory P. Conners, MD, MPH, MBA
University of Rochester Medical Center; Rochester, NY

Each of the following questions has one BEST answer.

1. Your colleague signs out a previously generally healthy 2-year old boy who swallowed a penny a few hours earlier, has had no complaints, and has a normal physical exam. He is awaiting a chest radiograph. Appropriate questions to ask your colleague include:

   A. “Why get a chest radiograph? If he is fine clinically, he will do just fine.”
   B. “Have you called child protection? He clearly is neglected.”
   C. “Did you request that the chest radiograph include the pharynx?”
   D. “Do those modern pennies show up on a chest radiograph?”

2. The film comes back and is read by a radiologist as “Disc shaped radiopaque foreign body in mid-abdomen. Clinical correlation suggested.” You agree – the penny is in the small intestine. Appropriate next steps include:

   A. Discharge the child and tell the parent everything will be fine.
   B. Discharge the patient and tell the parent that things likely will be fine, but explain the signs and symptoms of intestinal perforation and obstruction, just to be sure.
   C. Arrange with the child’s primary care pediatrician for a follow-up physical examination and abdominal radiograph the next morning.
   D. Instruct the parent to examine the child’s stools, to be sure that the penny has passed or not passed.

3. The parent remembers having read something in *Time Magazine* about pennies “burning a hole in the stomach.” Safe and accurate responses include:

   A. Arranging for pediatric gastroenterology clinic follow-up because of this risk.
   B. Telling the parent that zinc pennies in the stomach have been reported to rarely cause gastric mucosal ulceration, but that is not a risk now since this penny is below the stomach.
   C. Begin a brief course of oral antacids.
   D. Tell the parent to “watch for change in the stool” and start laughing.

4. The next day, a husky 7-year old boy presents with “choking on lunch.” He swallowed half a hot dog with minimal chewing, and felt it get stuck in his throat. He tried drinks, but cannot swallow them. He is drooling and uncomfortable but not in great pain or distress. A radiograph shows a vague upper esophageal mass. Appropriate management includes:

   A. IV glucagons
   B. IV diazepam
   C. IV nifedipine
   D. Otolaryngology consultation

5. A teenage girl gets so upset after an argument with her parents that she impulsively swallows a button/disk battery at 2:00 AM. A 3:30 AM radiograph reveals the battery in the mid-esophagus. She is tearful but cooperative. Appropriate management includes:
A. Admitting her for a psychiatric evaluation in the morning, followed by otolaryngology evaluation for possible endoscopy in the afternoon.
B. Urgent otolaryngology evaluation, with psychiatric evaluation to follow.
C. Calling a toxicologist to initiate heavy metal decontamination.
D. Consulting with a pediatric radiologist to arrange for urgent removal of the battery using a Foley catheter under fluoroscopic guidance.

6. A previously generally healthy nine-year-old boy, while touring his father’s factory workplace, decided to show off a bit, and put a small piece of aluminum in his mouth. He then accidentally swallowed it. His father brought him to the Emergency Department because he complained of feeling like it was stuck “right here,” pointing to his upper sternum, despite drinking a glass of water. He has no respiratory complaints. Suspecting it is lodged in the esophagus, you order a chest radiograph. However, the radiograph does not reveal a radiopaque foreign body. The patient continues to voice the same complaint. Appropriate management includes:

A. Removing from the child all clothing that contains metal, then running a hand-held metal detector over the front and back of his chest and abdomen.
B. Attributing his foreign body sensation to an esophageal abrasion, reassuring the father, and discharging him.
C. Arranging for a CT scan of the child’s esophagus.
D. Giving an oral dose of syrup of ipecac.

7. A previously healthy 4 year-old girl child had moderate chest pain for several hours. Then she was brought to the Emergency Department after a single episode of vomiting a large amount of blood. Your urgent evaluation includes a chest radiograph, which reveals a coin-shaped object in the mid-chest. The parents note that she had swallowed a nickel several weeks earlier, but had seemed fine after several minutes of gagging, so they did not seek medical care at that time. She had been otherwise generally well until today, although they note she has not been eating very well. The most important thing to realize regarding the coin is that it may be:

A. causing some mucosal irritation and ulceration, with some bleeding.
B. a source of a nickel allergy, which has led to bleeding.
C. a “red herring” and likely not related to the current complaint.
D. the source of an acquired aorto-esophageal fistula, which has caused a “sentinel bleed.”