An Unusual Cause for Acute Odynophagia: Accidental Ingestion of a Carpenter Ant

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Abstract:
A healthy 57 yr old man presented with acute onset of throat pain and odynophagia symptoms. Upper endoscopy revealed a normal esophagus, no evidence of viral, bacterial or fungal esophagitis. A carpenter ant was embedded in his upper esophageal sphincter. Endoscopic removal of the ant resulted in prompt and complete resolution in his symptoms.

Methods:
Image taken through an Olympus processor and digitally captured using a Dimage A1 digital camera.

Case Report:
A healthy 57 year old male was spending the weekend in his rustic cabin located in northern Minnesota. Following a morning 10 kilometer run, he had a bowl of high fiber cereal containing walnuts. On first swallow of cereal, he experienced severe throat pain and odynophagia. The patient was concerned that he had swallowed a walnut shell. He tried to induce vomiting, but the painful sensation persisted. After persistence of symptoms for over 4 hours, the patient presented to our emergency department. Physical exam remarkable for absence of laryngeal tenderness or neck crepitance. Cardiopulmonary and abdominal examinations were normal.

Endoscopy revealed a small black tubular structure at the opening of the upper esophageal sphincter. It was partially drawn into the biopsy channel, but was firmly attached to the hypopharyngeal mucosa and could not be pulled off with maximal suction. Closer inspection of the hypopharynx revealed what appeared to be a black carpenter ant (Camponotus pennsylvanicus) with pincers firmly embedded at the entrance of the upper esophageal sphincter, see Figure 1A & B. The ant was carefully removed with a biopsy forceps. There did not appear to be residual insect parts or edema at the site where the insect had previously been attached. The remainder of the endoscopic examination showed the esophageal mucosa to be without changes of gastroesophageal reflux, viral, bacterial or fungal esophagitis. There were no additional carpenter ants identified in the stomach or esophagus. His symptoms were improved after endoscopy.

Figure 1A: Endoscopy images of the upper esophageal sphincter showing the attached insect.
In recovery, the patient related pertinent information that his cabin has a carpenter ant infestation. We suspect the ant(s) causing this patient’s symptoms was lurking in his cereal.

**Discussion:**

Carpenter ants are widespread pests, excavating wooden structures for shelter.\(^1\)\(^2\) There are over a dozen species of carpenter ants. The black carpenter ant (Camponotus pennsylvanicus) is the most common carpenter ant in the United States and the probable species responsible for this patient’s symptoms. C. pennsylvanicus can be recognized by size (1-2 cm), black color of the head and body, and by whitish hairs on the abdomen.\(^3\) While carpenter ant bites are not poisonous and do not carry disease, they can inject formic acid causing irritation and pain.\(^4\)\(^5\) This is first published report of a carpenter ant causing acute odynophagia. From the experience gained in the management of this case, it is suggested that simple removal of the ant is sufficient to alleviate symptoms.\(^6\)\(^7\)

**Figure 1B:** Endoscopy images of the upper esophageal sphincter showing the attached insect.

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**References:**


