



The “sigmoid” esophagus

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The “sigmoid esophagus” metaphorically describes the dilated, debris-filled esophagus in end-stage achalasia. The body of the esophagus begins to sag inferiorly, giving it a tortuous, sigmoid appearance resembling that portion of the distal colon (Fig. 1) [3]. This characteristic appearance can be seen on multiple imaging modalities. Chest radiography, for example, can reveal a widened mediastinum, a mediastinal air-fluid level, or absence of a gastric air bubble (Fig. 2) [1]. An esophagram highlights the degree of stasis and profound dysmotility [1]. CT offers ancillary findings such as tracheobronchial tree compression, and the frequently associated sequela of aspiration (Fig. 3) [1].

As achalasia worsens over years, patients commonly experience progressive dysphagia, frequent aspiration, weight loss, and cachexia. The structural alterations of the esophagus become irreversible and treatments such as mechanical dilation, botulinum toxin injections, and myotomy become less effective [3]. The conventional treatment for a sigmoid esophagus has been esophagectomy, though there is no consensus on the ideal surgical management [3]. While recent studies have shown the potential for less invasive treatments such as laparoscopic Heller myotomy with an additional anti-reflux procedure, and peroral endoscopic myotomy, long-term outcomes for these procedures are not available [2, 3].



Fig. 1 Sigmoid colon with a tortuous course as it approaches the rectum. The dilated, circuitous course of the esophagus in end-stage achalasia closely resembles this appearance, hence the term “sigmoid esophagus”. Image from <http://samedicalgraphics.com/case-specific-exhibits/>

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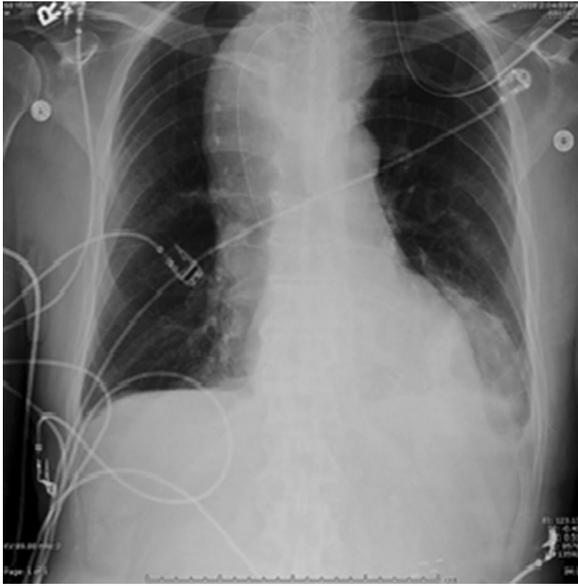


Fig. 2 Chest radiograph demonstrating a widened mediastinum with the presence of a nasogastric tube reflecting the tortuous, dilated, and elongated esophagus. No gastric bubble is identified, a nonspecific sign that can be associated with achalasia

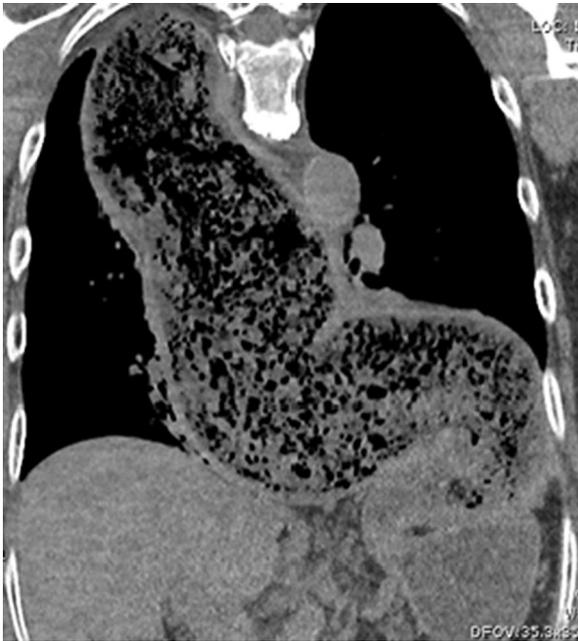


Fig. 3 A coronal reformatted unenhanced CT image of the chest in the same patient, as shown in Fig. 2, clearly delineates the contour of the dilated, tortuous, esophagus with its “sigmoid” appearance. The body of the esophagus is filled with debris, sags inferiorly, and abuts the each hemidiaphragm

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Research involving human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

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