



# A Case of Dysphagia due to an Esophageal Duplication Cyst in a Difficult Anatomical Site: A Challenging Situation for Endoscopic Treatment

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## Introduction

Esophageal duplication cyst is a rare congenital cyst that results from aberration of the posterior division of the embryonic foregut at the fourth to eighth week of gestation. Most of these cysts become symptomatic in childhood, whereas in adults they are usually an asymptomatic incidental radiographic or endoscopic finding. They may cause symptoms due to compression, rupture and inflammation of the esophagus or the respiratory system and require intervention and treatment when being symptomatic [1-4].

## Case Study

We report the case of an 83-year-old patient with a history of metabolic syndrome and heart disease who presented with a five-month history of dysphagia, mainly on solid food and during the passage of food through the Upper Esophageal Sphincter (UES). An esophagogram showed a filling deficit below the UES and esophagoscopy revealed a polypoid projecting mass (Figure 1A) immediately after the UES, with smooth mucosa causing narrowing (but not obstruction) of the lumen. The patient underwent an Endoscopic Ultrasound (EUS) to identify this polypoid mass which revealed characteristics of a clear submucosal formation located in the area of the 3<sup>rd</sup> ultrasound layer (Figure 1B), with preservation of the integrity and sound structure of the other layers. After aspiration of the content a thick mucus amorphous material was drained (mucous cyst) that was negative for malignancy. The patient was treated with a minimally invasive technique, re-

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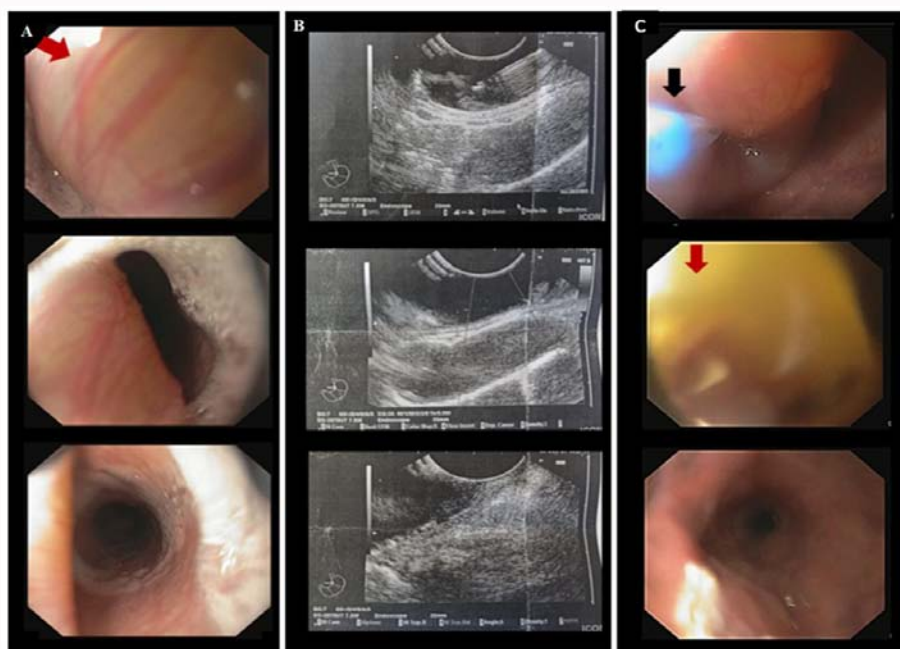
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**Figure 1:** A) Esophagoscopy revealing a polypoid projecting mass in the area of upper esophageal sphincter. B) Endoscopic Ultrasound (EUS) identifying characteristics of a submucosal formation located in the area of the 3<sup>rd</sup> ultrasound layer. C) Longitudinal fissure with a needle-knife sphincterotomy, with subsequent outflow of copious yellow-gray mucous contents and flattening of the cyst.

endoscopy was performed and the cyst was opened with a longitudinal fissure with a needle-knife sphincterotomy, with subsequent outflow of copious yellow-gray mucous contents and flattening of the cyst (Figure 1C). Two months later, the patient remained asymptomatic and no cyst recurrence was observed during endoscopic follow-up.

## Conclusion

Esophageal duplication cyst should be considered in the differential diagnosis in any patient presenting with gastrointestinal symptoms such as dysphagia. Treatment for this condition is currently moving from surgery to endoscopic interventions when endoscopic ultrasound demonstrates that the cysts are located within the submucosal layer and do not communicate with the deep muscle layer. Small duplication cysts can be removed completely with a polypectomy loop or with an insulated tip knife safely and effectively.

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