

Beyond Mechanical Failure: Esophagitis Causing Post-Myotomy Obstruction in Congenital Achalasia

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A 6-year-old boy with a background of congenital achalasia cardia, who underwent Heller myotomy and fundoplication 18 months ago, presented with a two-week history of recurrent vomiting after food and fluid intake. The episodes progressively increased in frequency and severity. Initially, the intolerance was limited to solid foods but later extended to all types of food and liquids. To evaluate the cause of his dysphagia, the patient underwent esophagogastroduodenoscopy, which revealed inflamed oesophageal mucosa with ulceration and blackish discoloration of the lower third of the esophagus [Figure 1].

Informed consent was obtained from the patient's parents.

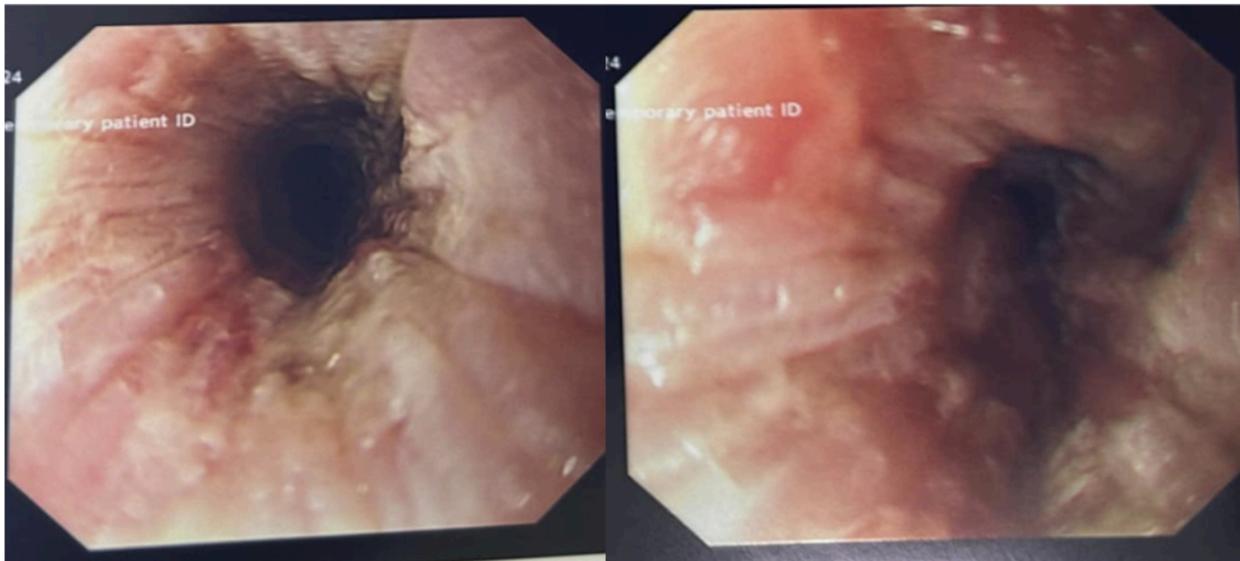


Figure 1: Endoscopy showing inflamed esophageal mucosa with whitish and yellowish plaque-like lesions, typical of *Candida* esophagitis.

Questions

1. What is the diagnosis?
2. What are the possible causes of vomiting after Heller Myotomy?
3. How would you confirm the diagnosis?
4. How would you manage this condition?

Answers

1. *Candida* esophagitis as the endoscopy image reveals inflamed esophageal mucosa with whitish and yellowish Plaque-like lesions, typical of *Candida* esophagitis.
2. Possible differential diagnosis; first: Incomplete myotomy – persistent obstruction because the myotomy did not fully divide the lower esophageal sphincter. Second: Tight fundoplication – too tight a wrap may obstruct the esophagogastric junction. Third: Recurrent or persistent achalasia – incomplete relief of the primary motility disorder. Fourth Gastroesophageal reflux disease– occurs in some after myotomy due to loss of lower oesophageal specifically competence, leading to esophagitis and secondary dysphagia.
3. Biopsy and/or brushings of the esophageal mucosa for histological examination which usually reveals the presence of yeasts and pseudohyphae invading into mucosal cells. Culture of the specimen reveal *Candida*.
4. Systemic antifungal therapy with fluconazole.

Discussion

The histological examination of the esophageal mucosa showed inflamed esophageal mucosa with focal ulceration and *Candida* spores and pseudo-hyphae [Figure 2]. The child was managed with oral fluconazole for 2 weeks and the family subsequently reported improvement in symptoms. He currently experiences occasional vomiting with solid foods, which represents his baseline due to his underlying motility disorder.

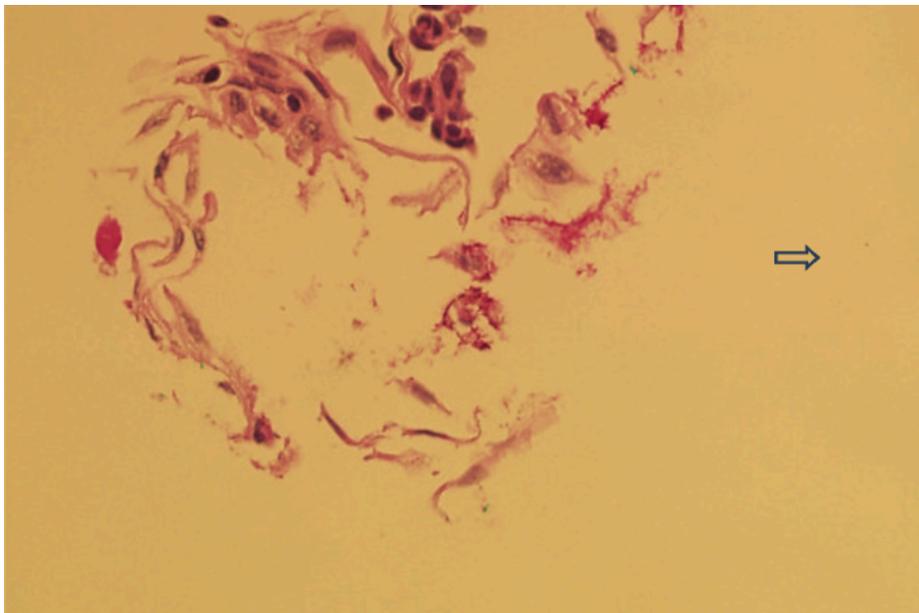


Figure 2: Histopathology showing fungal pseudohyphae in the esophageal biopsy.

Esophageal achalasia (EA) is a disorder affecting all age groups and it is a rare esophageal motor disorder caused by abnormal absence of ganglion cells in the Auerbachian muscle layer in the lower esophagus. EA rarely occurs in children below 5 years of age. The symptoms in EA occur because of high resting tension and impaired relaxation of the lower esophageal sphincter.¹ The main objective in the management of EA is to reduce the pressure

of the lower esophageal sphincter (LES) to facilitate normal peristalsis. Surgical Heller myotomy (HM) with a partial anti-reflux surgery is considered the gold standard due to its high effectiveness and safety; over the recent years, peroral endoscopic myotomy (POEM) was introduced as a minimally invasive technique.²

Infectious esophagitis is uncommon in children and occurs predominantly in those who are immunocompromised.³ The principal pathogens include *Candida* species, herpes simplex virus (HSV), and cytomegalovirus (CMV). *Candida* esophagitis, in particular, is typically associated with impaired immunity due to malignancy or immunosuppressive therapy.³ Only five cases of *Candida* esophagitis were identified in a recently published Romanian pediatric study of 520 children undergoing upper gastrointestinal endoscopy for symptoms such as dysphagia, heartburn, and appetite loss. Among the 11 cases of infectious esophagitis, *Candida* was the most common etiology (5/11), followed by CMV (4/11) and HSV (2/11).³ The study identified immunodeficiency (81.8%) and prolonged broad-spectrum antibiotic therapy as the principal risk factors associated with the development of infectious esophagitis.³ The diagnostic criteria for esophageal candidiasis includes the characteristic endoscopic appearance which is the white or slightly yellowish, plaque-like lesions are seen on the esophageal mucosa, microscopic evidence of pseudohyphae in endoscopic mucosal brushings, or invasive candidiasis on biopsy.⁴

While candidiasis esophagitis in achalasia is relatively rare, several literature reviews and isolated case reports have noted this association. This association highlights that stasis of food and secretions in the esophagus due to impaired peristalsis leads to mucosal maceration and altered pH, can predispose to secondary opportunistic infections, with *Candida* being the most frequently encountered pathogen.⁵ Evidence linking achalasia to *Candida* esophagitis is derived primarily from adult-focused studies. A large retrospective cohort of 234 patients with achalasia (median age 45 years) reported a 12% prevalence of esophageal *Candida* infection, markedly higher than the 0.32–5.2% estimated in the general population; however, the study did not provide age-stratified data to clarify pediatric involvement.⁵ Although infectious esophagitis commonly affects immunocompromised patients, esophageal stasis and poor clearance due to motility disorders such as achalasia predisposes even immunocompetent individuals to *Candida* infection which is considered as the most common infectious cause in dysmotility-associated esophagitis.

Esophageal candidiasis generally responds to systemic antifungal therapy, with oral fluconazole as the preferred first-line agent. Intravenous fluconazole is used when oral dosing is not feasible, and alternatives include itraconazole and voriconazole. Amphotericin B and posaconazole are reserved for refractory or severe disease. Management follows standard pediatric infectious esophagitis approaches; no achalasia-specific pediatric guidelines are available.⁴ Although adult studies suggest a possible link to increased esophageal cancer risk, pediatric outcomes are unknown.⁵ Infectious esophagitis may cause notable morbidity, especially in immunocompromised children, but most cases improve with timely antifungal therapy.³

Conclusion

Candida esophagitis is the most common infectious etiology associated with esophageal dysmotility, including achalasia and post-Heller states. Esophageal stasis and impaired clearance of food can predispose even immunocompetent individuals to *Candida* infection.

Disclosure

The authors declared no conflicts of interest. Written consent was obtained from the patient's parents.

References

1. Marlais M, Fishman JR, Fell JM, Haddad MJ, Rawat DJ. UK incidence of achalasia: an 11-year national epidemiological study. *Arch Dis Child*. 2011;96(2):192-4. doi:10.1136/adc.2009.171975.
2. Jarzębicka D, Czubkowski P, Sieczkowska-Gołąb J, Kierkuś J, Kowalski A, Stefanowicz M, et al. Achalasia in children—clinical presentation, diagnosis, long-term treatment outcomes, and quality of life. *J Clin Med*. 2021;10(17):3917. DOI:10.3390/jcm10173917.

3. Bordea MA, Pîrvan A, Gheban D, Silaghi C, Lupan I, Samaşca G, Pepelea L, Junie LM, Costache C. Infectious esophagitis in Romanian children: From etiology and risk factors to clinical characteristics and endoscopic features. *J Clin Med.* 2020;9(4):939. doi:10.3390/jcm9040939
4. Mohamed AA, Lu X-L, Mounmin F A. Diagnosis and Treatment of Esophageal Candidiasis: Current Updates. *Can J Gastroenterol Hepatol.* 2019;2019:3585136. doi:10.1155/2019/3585136.
5. Guo X, Lam SY, Janmaat VT, de Jonge PJ, Hansen BE, Leeuwenburgh I, et al. Esophageal Candida Infection and Esophageal Cancer Risk in Patients With Achalasia. *JAMA Netw Open.* 2025;8(1):e2454685. doi:10.1001/jamanetworkopen.2024.54685.