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MODESTUM

Case Report **OPEN ACCESS**

Hypertrophic pyloric stenosis in adults: A case report

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ABSTRACT

Background: Hypertrophic pyloric stenosis (HPS) in adults is rare, often diagnosed late due to nonspecific symptoms.

Objective: We report a case of adult HPS secondary to chronic gastritis with *helicobacter pylori* and update the literature with recent publications.

Case: A 39-year-old man presented with vomiting, weight loss, and dyspepsia. Endoscopy and CT excluded malignancy. After failed endoscopic dilation, laparoscopic distal gastrectomy with Roux-en-Y reconstruction was performed. Outcome was favorable.

Conclusion: Adult HPS should be included in the differential diagnosis of gastric outlet obstruction. Surgery remains the definitive therapy, while less invasive options such as botulinum toxin and G-POEM are emerging.

Keywords: hypertrophic pyloric stenosis, adult, gastritis, *helicobacter pylori*

INTRODUCTION

Hypertrophic pyloric stenosis (HPS) is typically an infantile disease, with an incidence of 2-3 cases per 1,000 live births. In adults, it is rare, with fewer than 300 reported cases. Adult HPS may be idiopathic (primary) or secondary to peptic ulcer disease, chronic gastritis, *Helicobacter pylori* infection, or neoplasia. Symptoms are often nonspecific, delaying diagnosis. Recent literature highlights the role of advanced endoscopic and minimally invasive surgical approaches.

CASE PRESENTATION

Patient

A 39-year-old man with history of untreated *helicobacter pylori* gastritis presented with progressive postprandial vomiting, abdominal pain, and 7 kg weight loss in 3 months. Physical exam showed malnutrition and dehydration.

Investigations

Laboratory workup showed mild anemia and hypoalbuminemia. Endoscopy revealed a narrowed pylorus with gastric stasis, biopsies confirmed chronic gastritis without malignancy. CT demonstrated thickened pyloric wall with no tumor. Upper GI series confirmed pyloric obstruction.

Treatment

Endoscopic dilation was attempted but failed. Laparoscopic distal gastrectomy with Roux-en-Y reconstruction was performed. Intraoperative findings confirmed thickened pylorus without malignancy. Postoperative course was uneventful with gradual oral refeeding and complete recovery.

Outcome

At 6-month follow-up, the patient had no recurrence of symptoms and maintained adequate nutrition.

DISCUSSION

Adult HPS is rare and can mimic gastric malignancy. It may be primary (neuromuscular dysfunction and idiopathic) or secondary (peptic ulcer disease, chronic gastritis, and neoplasia). Diagnosis requires endoscopy with biopsy and imaging. Recent case reports describe varied approaches as follows:

1. Botulinum toxin injection as a temporary, less invasive therapy.
2. Gastric per-oral endoscopic myotomy (G-POEM) as a novel technique.
3. Definitive surgery (distal gastrectomy, gastrojejunostomy, and pyloroplasty) remains standard, particularly in severe or refractory cases.

Our case aligns with the study in [1], where laparoscopic distal gastrectomy proved effective after failed endoscopic treatment. There are other related studies that emphasize the need for surgical management in recurrent or severe obstruction [2-9].

CONCLUSION

Adult HPS should be considered in the differential diagnosis of gastric outlet obstruction. Endoscopic and radiological evaluation, with biopsy, is essential to exclude malignancy. Surgery provides definitive relief, though emerging options such as botulinum toxin and G-POEM may benefit selected patients.

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REFERENCES

1. Türkoğlu MA, Ekinci M, Sert A, Alyaz BE, Uyar Gocun FP. Is laparoscopic distal gastrectomy a justified approach for adult hypertrophic pyloric stenosis? Gazi Med J. 2025;36(2):221-5. https://doi.org/10.12996/gmj.2025.4343
2. Altfillisch C, Freberg E, Patel M. A rare approach to a rarer diagnosis: Managing idiopathic hypertrophic pyloric stenosis with botulinum toxin. Am J Gastroenterol. 2024;119(10S):S3194. https://doi.org/10.14309/01.ajg.0001049700.32514.2c
3. Lee RS, Dygulski S, Hemida Y, Uy GM. A rare case of type II adult hypertrophic pyloric stenosis secondary to chronic peptic ulcer disease. Cureus. 2025;17(5):e85037. https://doi.org/10.7759/cureus.85037
4. Zanwar S, Joshi H, Kalal C. Gastric per-oral endoscopic myotomy for a new indication. Clin Endosc. 2025. https://doi.org/10.5946/ce.2025.057
5. Na HK, Li AA, Gottfried-Blackmore A, et al. Pyloric dysfunction: A review of the mechanisms, diagnosis, and treatment. Gut Liver. 2025;19(3):327-45. https://doi.org/10.5009/gnl240421 PMid:40058793 PMCid:PMC12070220
6. Gnanaselvam P, SK J, Wickramaratne SE, Mathivannan G, Kurunanithy P. Case report on adult hypertrophic pyloric stenosis: A rare presentation. J Clin Images Med Case Rep. 2025;6(1):3444. https://doi.org/10.52768/2766-7820/3444
7. Çataltepe E, Çeker E, Güngör F, Varan HD. Idiopathic hypertrophic pyloric stenosis–A rare condition mimicking gastric cancer in an older adult. Eur J Geriatr Gerontol. 2023;5(3):265-7. https://doi.org/10.4274/ejgg.galenos.2023.2023-12-6
8. Belkind-Gerson J. Sténose hypertrophique du pylore [Hypertrophic pyloric stenosis]. Le Manuel MSD; 2023. Available at: https://www.msdmanuals.com/fr/ (Accessed: 27 March 2024).
9. Knight CD. Hypertrophic pyloric stenosis in the adult. Ann Surg. 1961;153(6):899-910. https://doi.org/10.1097/00000658-196106000-00010 PMid:13757107 PMCid:PMC1614008