Early Experience Of Peroral Endoscopic Myotomy (POEM) In An Ambulatory Endoscopy Unit

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Background

Achalasia is a rare esophageal motility disorder characterized by impaired peristalsis and lower esophageal sphincter (LES) relaxation due to ganglion cell degeneration. This leads to dysphagia, regurgitation, chest pain, and weight loss. Despite treatment options like pneumatic dilation and laparoscopic Heller myotomy, peroral endoscopic myotomy (POEM) has emerged as a promising minimally invasive approach. POEM offers several advantages, including the preservation of esophageal structures, reducing the risk of postoperative gastrosophageal reflux disease (GERD). This case series report aims to evaluate the surgical technique and outcomes of patients with achalasia undergoing peroral endoscopic myotomy.

Methods

A retrospective descriptive case series study was conducted to analyze data from patients who underwent POEM between 2021 and 2024. Patients with achalasia types I or II, confirmed by barium swallow, manometry, and endoscopy were included. Demographic characteristics, intraoperative variables (operative time, ICU stay, complications), and postoperative outcomes (Eckardt score, recurrence, reflux-induced esophagitis) were collected.

Results

Eleven patients underwent POEM. The mean preoperative Eckardt score was 10.5. Two patients required ICU stay due to bronchoaspiration and intravascular disseminated coagulation. Intraoperative complications included pneumoperitoneum and subcutaneous emphysema in one patient, upper gastrointestinal bleeding in one patient, and an esophago-pleural fistula in one patient. The pneumoperitoneum and subcutaneous emphysema cases were managed with oxygen and needle aspiration. The upper gastrointestinal bleeding was managed endoscopically with clips, and the esophago-pleural fistula was managed with stent placement and Endovac system. The mean postoperative Eckardt score was 2.6 points, and only two patients developed reflux-induced esophagitis. Only one patient required reintervention after one month, given persistence of symptoms who required additional esophageal dilation. The mean follow-up period was 18 to 24 months.

Conclusion

This case series demonstrates the feasibility and safety of POEM in an ambulatory endoscopy unit. POEM offers a minimally invasive and effective treatment option for achalasia, with low complication rates and significant improvement in patient symptoms. Further studies are needed to evaluate the long-term outcomes of POEM and to compare it with other treatment modalities for achalasia.

