

Surgical Management of Severe Anal Stenosis Using Anal Advancement Flap: A Case Report

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Abstract: Anal stenosis is a rare but major complication, following anorectal surgery such as hemorrhoidectomy. Patients presented with constipation and painful defecation. We report a case of a 65-year-old male with severe post-hemorrhoidectomy anal stenosis, treated with conservative management followed by operative intervention with anal mucosal advancement flap. The patient had marked improvement in symptoms With no recurrence on follow up.

Keywords: anal stenosis, hemorrhoidectomy, anorectal, anal advancement flap

1. Introduction

Anal stenosis, defined as a pathological narrowing of the anal canal, resulting from excessive scarring or fibrosis. The condition is often iatrogenic following operative procedures particularly post-hemorrhoidectomy. Depending on severity, management ranges from stool softeners and dilation to surgical correction. In moderate to severe cases, sphincter-sparing techniques such as mucosal or V-Y advancement flaps are preferred for durable results and preservation of continence. This report presents a case of severe anal stenosis effectively treated with anal mucosal advancement flap.

2. Case Presentation

A 65-year-old male presented with history of constipation, painful defecation. He had a history of open hemorrhoidectomy 1 year back. On examination, the anal opening was narrowed to thin caliber passing only little finger. There were no external signs of inflammation or abscess nor any fistulous tract present. Patient was admitted and underwent several investigation with cect abdomen pelvis which confirmed circumferential fibrotic narrowing at the anal verge. MRI pelvis ruled out deep-seated abscess or fistula. Laboratory tests were unremarkable. Initial conservative treatment with stool softeners, laxatives, and sitz baths failed. Serial anal dilations provided only temporary relief. Surgical correction was planned. Under spinal anesthesia, the fibrotic anal epithelium was excised in the posterior midline. A mucosal advancement flap was created from proximal healthy rectal mucosa. The flap was mobilized, advanced distally, and sutured to the anoderm using interrupted absorbable sutures. Care was taken to avoid tension on the flap.

The patient recovered without complications. Analgesics, stool softeners, and warm sitz baths were prescribed. At 2 weeks, the flap had taken well, with significant improvement in stool passing. The patient reported normal bowel habits, no pain, and full continence.



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3. Discussion

Severe anal stenosis is a distressing complication, most commonly following hemorrhoidectomy. While mild cases may benefit from medical management or dilation, advanced stenosis often requires reconstructive surgery. The anal advancement flap is an effective, relatively simple, sphincter-preserving procedure. It provides well-vascularized tissue to replace fibrotic areas and restore luminal diameter.

4. Conclusion

Anal advancement flap surgery is a safe and effective option for treating severe anal stenosis, particularly when conservative therapy fails. Early surgical intervention can restore anal canal patency, relieve symptoms, and prevent further complications.

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