Successful Endoscopic Closure of Persistent Sinus Tract Using X Tack Endo Stitch Following Iatrogenic Rectal Perforation

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Background

- A sinus cavity is a possible sequela of a chronic posterior rectocutaneous fistula resulting from a leak following repair of a rectal injury
- In cases where open repair is not immediately feasible due to a recent major resection or other factors, endoscopic interventions can be considered as a possible alternative
- This case study presents the viability of endoscopic closure, specifically the use of the X tack Endo Stitch, in treating a persistent draining sinus tract

Case Description

- A 68-year-old male underwent extensive en bloc resection of sacrococcygeal chordoma involving S4-S5 sacrectomy and complex plastic closure
- During the surgery, an inadvertent rectal perforation occurred, leading to the development of a draining fistula tract
- To manage the situation and prevent complications, a loop ileostomy was created to divert fecal flow away from the injured site
- Despite meticulous primary repair of the rectal perforation and loop ileostomy creation, the patient developed a leak
- The patient became symptomatic and multiple repairs of the anastomotic leak were attempted
- However, the anastomotic leak matured into a chronic sinus tract
- Other traditional treatment options for a chronic sinus tract, such as a lower anterior resection, were considered too invasive and not an immediate option due to the relative recency of the major resection and the potential for complications associated with a more extensive surgical intervention
- Given the challenges posed by the persistent fistula and the need for a less invasive approach, endoscopic closure using the X Tack Endo Stitch was chosen
- The X Tack Endo Stitch allowed for precise suturing of the sinus tract endoscopically, promoting effective closure and sealing of the tract

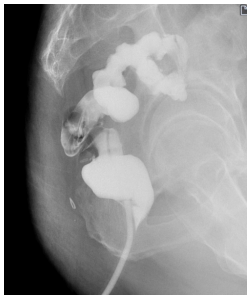
Results

- Following the endoscopic closure, the patient was closely monitored during the postoperative period
- The X Tack Endo Stitch proved to be successful in sealing the sinus tract and resulted in a gradual reduction of drainage from the surgical site
- Two months following the endoscopic repair, a contrast study showed no evidence of leakage from the previously draining sinus tract
- Subsequent endoscopic examination confirmed the successful closure, revealing a healed sinus tract site
- At four months post-endoscopic closure, the patient underwent planned ileostomy closure
- His post-closure recovery was uneventful, and he reported a significant improvement in his overall well-being
- He experienced no drainage from the previous sinus tract site and had regular bowel movements

PRIOR TO REPAIR



FOLLOWING REPAIR



Discussion

- Re-operative surgery for an anastomotic leak has a success rate of 79% and a 16% incidence of major postoperative morbidity (1)
- A less invasive option involving the use of fibrin glue may also be considered to fill the sinus cavity
- However, fibrin glue has only been shown to be effective in treating a small sinus (2)
- Our successful endoscopic closure of the persistent sinus tract using the X Tack Endo Stitch significantly improved the patient's condition while avoiding the complications associated with re-operative surgery
  The reduction in drainage led to a decrease in discomfort and an improvement in overall quality of life
- The endoscopic intervention effectively achieved sinus tract closure, allowing for ileostomy closure and a return to regular bowel function
- This technique using X Tack Endo stitch for treatment of the persistent draining sinus tract demonstrates the practicability and effectiveness of this minimally invasive approach
- Endoscopic interventions offer a valuable option for managing persistent sinus tracts in cases where open repair may not be immediately feasible

Conclusion

- Endoscopic closure using the X Tack Endo Stitch is a valuable and effective option for managing persistent sinus and GI fistula tracts, especially when open repair is not an immediate option
- The positive follow-up findings which include the absence of leakage on the contrast study, the healed sinus tract on endoscopy, and successful ileostomy closure, further validate the efficacy of the endoscopic approach.

References

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