Endoscopic Setons Placement for Complex Perianal Fistulizing Crohn's Disease by Fistuloscopy Using Ultra-thin Endoscope Introduced into Fistula Cavity

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Endoscopic seton placement for perianal fistula is usually done for simple, single, short, and superficial fistula.[1,2] However, endoscopic seton placement for complex perianal fistula in fistulizing Crohn's disease (CD) has not been described earlier.[3]

A 19-year-old lady came with complex perianal fistulae (►**Fig. 1**; F-fistula external openings) with a history of chronic diarrhea and feculent fistula discharge. Magnetic resonance imaging (MRI) pelvis confirmed with finding of complex perianal fistulae (intersphincteric on both sides and with presacral extension; ►**Video 1**, ►**Fig. 1B** and **C**, axial and sagittal section of MRI, respectively). Colonoscopic biopsy confirmed CD.

First guidewire with hydrophilic tip (Jagwire, Boston Scientific, Massachusetts, USA) was introduced through external opening of left-sided fistula (5 o'clock) and then colonoscope was passed through rectum (►**Fig. 1D**) and the tip of the guidewire was brought out. Draining seton was railroaded over the guidewire and first seton was placed. For other fistulae, the guidewire passed through external opening could not be retrieved through internal opening due to large fistula cavity. Hence, an ultra-thin endoscope was introduced through large external openings of right-sided fistulae (8 and 10 o'clock) and the guidewire was placed inside the fistula cavity (►**Fig. 1E**, ►**Video 1**). Then endoscope introduced through rectum was negotiated into fistula cavity through internal openings near anal verge by gradual withdrawal of scope near anal canal and guidewire pulled out. Other setons were then railroaded over the guidewire to place the setons as described for the first seton. ►**Video 1** Thus, all the fistulas could be drained using endoscopic seton placement (total 3) as a day care procedure without the need for surgery (►**Fig. 1F**, ►**Video 1**). The entire procedure was done under conscious sedation (propofol and ketamine) without fluoroscopy or contrast injection to locate internal opening. Patient was given intravenous (3 days) followed by oral antibiotics (2 weeks) (ciprofloxacin and metronidazole) following which infliximab was initiated (3 weeks from index procedure). The patient responded clinically with reduction in fistula discharge and is being currently followed up.

In conclusion, endoscopic seton placement in complex perianal fistula is feasible using ultra-thin endoscope in day care settings. Large internal opening allowed introduction of ultra-thin endoscope in this case. This could be particularly helpful in minimizing surgical morbidity and hospital stay and initiation of biologics without delay in perianal fistulizing CD.

Video 1

Endoscopic setons placement for complex perianal fistula for complex perianal fistulizing Crohn's disease.

Online content including video sequences viewable at: https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0043-1777346.

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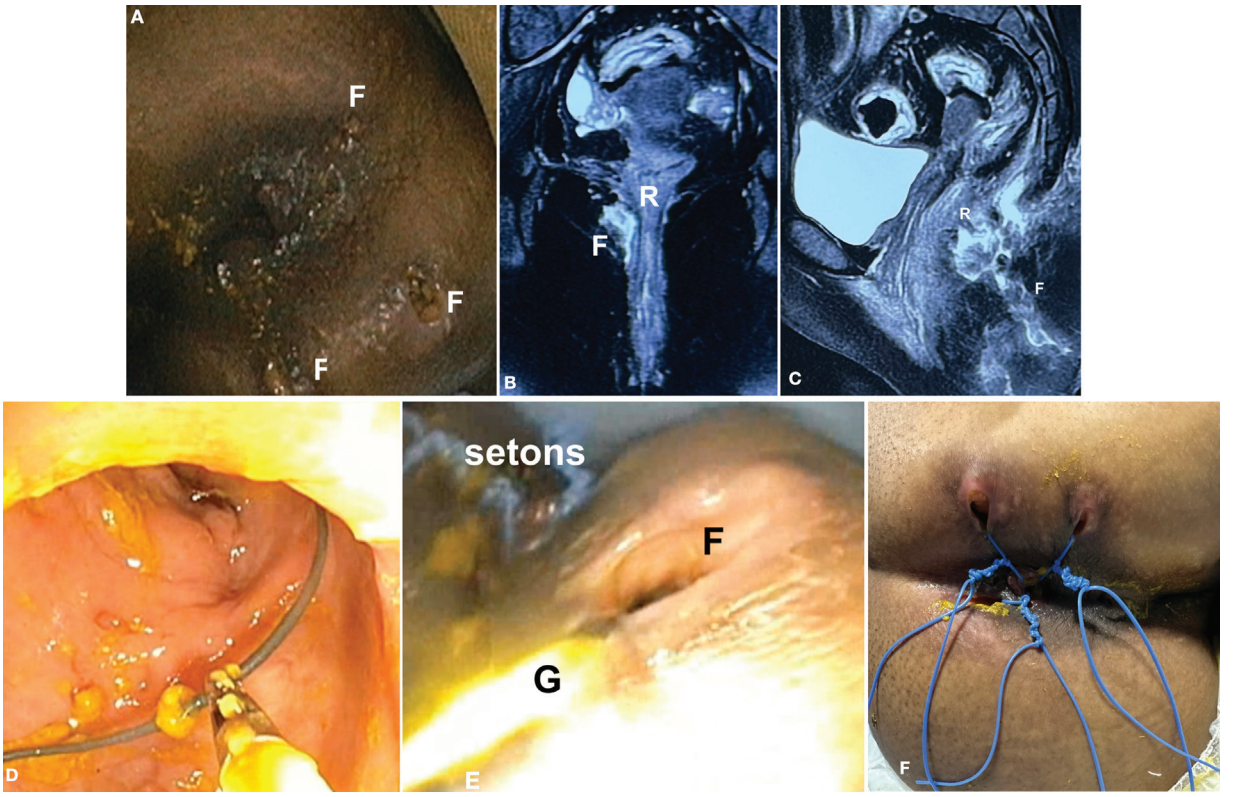

Fig. 1 (**A**) Complex perianal fistula with feculent discharge, (**B**) axial magnetic resonance imaging (MRI) showing right intersphincteric fistula (F) draining into rectum (R), (**C**) MRI sagittal section showing presacral extension of fistula tract. (**D**) Jagwire (Boston Scientific) introduced into rectum through external opening of left-sided fistula seen on colonoscopy, (**E**) guidewire (G) placed inside fistula cavity through large external openings of right-sided fistula (**F**) using ultra-thin endoscope. F. Postprocedure after complete placement of all setons across fistula tract.

Authors' Contributions

P.P. and P.R. conceptualized the study. P.P., P.R., and Z.N. helped in literature review and writing original draft and illustrations. P.P. provided images. M.T., Z.N., P.R., D.N.R., and R.G. helped in proof reading and critical review. M.R., P.P., P.R., D.N.R., M.T., and Z.N. approved final manuscript.

Consent

Written informed consent was taken from the patient for the publication of the information and imaging.

Financial Disclosure

None.

Conflict of Interest

None declared.

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References

1 Sinh P, Shen B. Endoscopically placed guidewire-assisted seton for an ileal pouch-pouch fistula. Gastrointest Endosc 2015;82(03): 575–576
2 Shen B. Exploring endoscopic therapy for the treatment of Crohn's disease-related fistula and abscess. Gastrointest Endosc 2017;85 (06):1133–1143
3 Pal P, Kanaganti S, Banerjee R, et al. Systematic review of endoscopic management of stricture, fistula and abscess in inflammatory bowel disease. Gastroenterol Insights 2023;14(01): 45–63