Transanal local excision for mucosal prolapse syndrome

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Dear Editor,

A 46-year-old male was admitted into our hospital because of intermittent blood stool and constipation for two years. Colonoscopy revealed a 1.5cm broad-based protruded lesion located at the rectum near the dentate line, with depression in the center (Fig1.A). Endoscopic ultrasonography showed that the hypoechoic lesion originated from the mucous membrane, and invaded the submucosa. The boundary between the local and intrinsic muscular layer was vague (Fig1.B). Histopathologic examination of biopsy specimens indicative of hyperplastic and regenerative changes on the surface of the epithelium (Fig1.C). A transanal local excision was conducted. Surgical excisions (Fig1.D) showed local surface erosion with granulation tissue formation, focal mucosa showed polypoid eminence, interstitial fibrous tissue and smooth muscle tissue hyperplasia with focal lymphocyte infiltration, which was consistent with mucosal prolapse syndrome (MPS). And there’s suppurative inflammation (Fig1.E).

Discussion

MPS is a rare benign disorder first described by Cruveilhier in 1892. [1] It is
historically called solitary rectal ulcer syndrome. MPS are categorized into ulcerative (55.1%), polypoid (24%), and flat (20.9%) types in endoscopy. It can affect different parts of gastrointestinal tract. \cite{2} Considering a few reports have depicted cases of MPS accompanied by rectal cancer. There’s speculation about the possibility of malignant transformation of MPS. \cite{3} MPS may present with bleeding, tenesmus, feelings of incomplete defaecation or constipation. \cite{3} The pathogenesis is obscure, such as straining, rectal prolapse, intussusception, and so on. \cite{2} Those factors may lead to direct trauma or local ischemia. The characteristic histological features of MPS are fibromuscular obliteration of lamina propria and splayed hypertrophic muscularis mucosa. \cite{2} In this case, there’s suppurative inflammation coexisted. We hypothesize that it was aseptic chronic suppuration after tissue necrosis. Laxatives in combination with high-fiber diet, and biofeedback are examples of the conservative treatment. Their short-term effects are good; however, the recurrence rate is high. \cite{4} Topical therapies, such as argon plasma coagulation, cause degeneration of the surface layer directly and heal the ulcers by re-epithelialization. \cite{5} But the MPS lesion may persist. Endoscopic submucosal dissection may lead long-term remission of MPS due to the en bloc resection and the development of fibrosis. But in MPS with ulcerated lesions, surgery is more suitable. \cite{4} But there is still no established treatment for MPS that is effective in the long term. In this case, it was successfully managed with surgery and there was no recurrence during follow-up.

References
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Fig1. A. Endoscopic view of the lesion in the rectum. B. Endoscopic ultrasonography showed that the lesion originated from the mucous membrane, and locally invaded the submucosa. C. HE staining of the biopsy specimen. D. The locally excised lesion. E. HE staining of the lesion.