IMAGE OF THE ISSUE

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Endoscopic Application of Purastat® in the Treatment of Solitary Rectal Ulcer Syndrome

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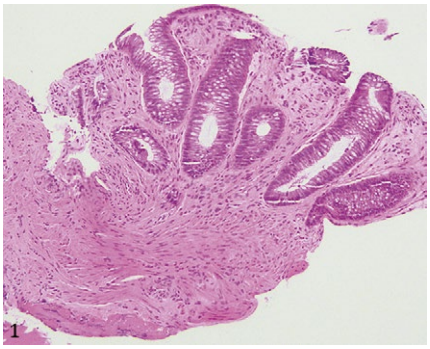

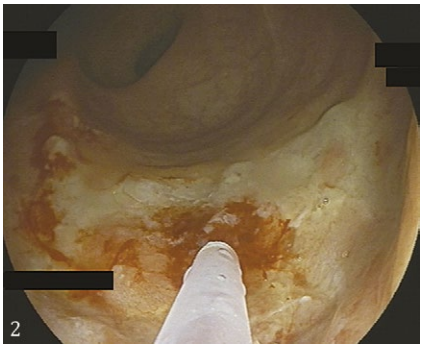

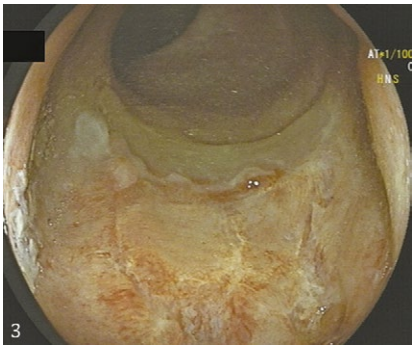

A 49-year-old woman with a recent history of tenesmus, constipation, abdominal and rectal pain was referred to our Digestive Endoscopy Unit. There was no previous history of rectal bleeding or a family history of gastrointestinal diseases. Laboratory tests showed haemoglobin 10.9 g/dl, MCV 72fl, ferritin 18 U/l. Physical examination was normal. The patient underwent a colonoscopy which identified a single ulcer of 2.5 cm of diameter without bleeding signs in the distal rectum, 4 cm from the anal margin. Histopathological examination revealed shallow ulceration with fibrosis in lamina propria (Fig. 1). We decided to treat the ulcer with one application of Purastat® (3D-Matrix Europe SAS, France) (Fig. 2). Four weeks later, a follow-up colonoscopy revealed a complete mucosal healing with only mild residual mucosal erythema (Fig. 3).

Solitary rectal ulcer syndrome (SRUS) is an uncommon benign proctologic disease usually affecting young adults with a prevalence of 1:100.000 per year, equally affecting women and men with a slight predominance in young women [1]. It is characterized by chronic rectal pain and bleeding, constipation, incomplete evacuation, tenesmus, and mucous discharge impairing the patients' quality of life. In past years several topical agents have shown clinical improvements, but none of them has been evaluated in prospective controlled trials [2, 3].

Purastat® is a novel self-assembling peptide developed as a haemostatic agent for endoscopic and surgical procedures [4]. In addition to the known haemostatic effect, it has been hypothesized that the activated Purastat® nanostructure will favor the cell and tissue proliferative process on account of the similarity of the activated Purastat 3-D nanostructure with the natural extracellular matrix (ECM-SM); scaffold material would result in an adequate adherence of cells and regenerative tissues, achieving more effective healing of the mucosa [5, 6]. Based on this hypothetical re-epithelizing property of Purastat, we decided to use it in this patient, achieving mucosal healing and symptoms improvement.

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REFERENCES

1. Forootan M, Darvishi M. Solitary rectal ulcer syndrome: A systematic review. Medicine 2018;97:e0565. doi:10.1097/MD.0000000000010565
2. Ederle A, Bulighin G, Orlandi PG, Pilati S. Endoscopic application of human fibrin sealant in the treatment of solitary rectal ulcer syndrome. Endoscopy 1992;24:736-737. doi:10.1055/s-2007-1010574
3. Sharara AI, Azar C, Amr SS, Haddad M, Eloubeidi MA. Solitary rectal ulcer syndrome: endoscopic spectrum and review of the literature. Gastrointest Endosc 2005;62:755-762. doi:10.1016/j.gie.2005.07.016
4. de Nucci G, Reati R, Arena I, et al. Efficacy of a novel self-assembling peptide hemostatic gel as rescue therapy for refractory acute gastrointestinal bleeding. Endoscopy 2020;52:773-779. doi:10.1055/a-1145-3412
5. Tsiamoulos ZP, Rajaratnam R, Sibbons PD, Saunders BP. Mo1994 Use of a Novel Synthetic, Topical Gel to Enhance Healing Post Endoscopic Mucosal Resection: A Randomised, Blinded Preclinical Study. Gastrointest Endosc 2017;85:AB506. doi:10.1016/j.gie.2017.03.1181
6. Uraoka T, Ochiai Y, Fujimoto A, et al. A novel fully synthetic and self-assembled peptide solution for endoscopic submucosal dissection-induced ulcer in the stomach. Gastrointest Endosc 2016;83:1259-1264. doi:10.1016/j.gie.2015.11.015