

Benign Colorectal Stricture: An Answer to the Balloon or Stent Question?

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See “Clinical Efficacy of Endoscopic Treatment for Benign Colorectal Stricture: Balloon Dilatation versus Stenting” by Chan Hyuk Park, et al. on page 73, Vol. 9, No. 1, 2015

Benign colorectal strictures have numerous causes, including postoperative stenosis, radiation, diverticular disease, ischemia, and inflammatory bowel disease. Although surgical management was once considered the standard treatment for benign colorectal strictures, advances in endoscopic techniques and various accessories have enabled successful treatment of benign colorectal strictures using endoscopic procedures such as balloon/bougie dilation and stent implantation. Still, a consensus regarding the adequate endoscopic management of benign colorectal strictures has not yet been reached.

In this issue of *Gut and Liver*, Park *et al.*¹ report their retrospective analysis comparing balloon dilatation and self-expanding metal stents (SEMS) in patients with benign colorectal stricture. The authors provide objective data, including short-term clinical efficacy (technical success, clinical success, reobstruction, and procedural failure), complications, and stent patency. They also offer information on predictive factors for clinical success and risk factors for procedural failure.

The use of SEMS for colorectal stricture has grown over time.² Their indications have expanded from the management of acute malignant colorectal obstruction to the treatment of benign colorectal strictures.² According to current literature, considerable variation in efficacy of SEMS for the treatment of benign colorectal strictures has existed.³⁻⁶ Disappointingly, Park *et al.*¹ show that, though the rates of initial clinical success and reobstruction were similar, the duration of patency was shorter for the SEMS group than the balloon dilatation group (2.0±0.6 months vs 65.5±13.3 months). However, it could be argued that the longer patency of the balloon dilatation group could be due to uncontrolled confounding by indication, that is, that SEMS use reflects more severe stricture. The authors found no signifi-

cant differences in the baseline characteristics of the two groups except for Eastern Cooperative Oncology Group performance status. Nonetheless, differences, albeit subtle, may exist between patients with balloon dilatation and SEMS regarding the indication for treatment and/or the length of the stricture. In addition, stent migration, which may influence the duration of patency, depends on whether a covered or uncovered stent is used. Moreover, the efficacy of the evolving stent technologies, including the biodegradable drug delivery covering material, remains to be established.⁷ Taken together, further studies are warranted to evaluate the efficacy of SEMS for the management of benign colorectal strictures.

The study by Park *et al.*¹ is limited by its small sample size. Thus, caution is required when interpreting the results of their multivariate analysis. Nevertheless, the clinically relevant messages in this report include the finding that strictures over 4 cm in length and radiation-related strictures were significant risk factors for procedural failure in the balloon dilatation group. Patients with these risk factors may require combined techniques or step-by-step management that is followed by more aggressive management if initial procedural failure occurs. In addition, of the 43 patients, 21 (43.8%)—consisting of 18 in the initial balloon dilation group and three in the initial SEMS group—required repeated procedures. In these recurrent cases, repetitive endoscopic procedures are a modest but effective way to help to maintain lumen patency.

Because surgery is more invasive than endoscopic procedures, particularly in the rectum, endoscopic dilation of colorectal strictures provides many benefits over surgical management. Nonetheless, there is apprehension about the adverse events related to endoscopic procedures. Even though only two patients

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in the balloon dilatation group suffered from perforation in the study of Park, perforation is the most feared adverse event of treatment of benign colorectal strictures because of its serious consequences.⁸ Therefore, as the authors have pointed out, meticulous care is required in endoscopic procedures, with correct use of the appropriate instruments.

In conclusion, benign colorectal strictures of various causes are not rare. The standard treatment algorithm for benign colorectal strictures has not been established. Thus, the approach should be individualized on the basis of the cause and the patient's condition. Considering its longer patency, endoscopic balloon dilatation is safe and effective as an initial treatment for benign colorectal strictures. In addition, repetitive endoscopic balloon dilatations are feasible treatment options for stricture recurrence. Based on the work by Park *et al.*¹ and other studies, SEMS insertion for benign colorectal strictures may currently be reserved for those in whom balloon dilation failed because of its shorter patency duration and risk of perforation. However, the development of endoscopic device technology and advances in treatment may expand the role of SEMS in benign colorectal strictures in the near future. Further studies are warranted to confirm the usefulness of newer SEMS and to clarify the best treatment management options for benign colorectal strictures. Finally, let us never forget that as we talk about the benign colorectal stricture, patient safety is the main concern.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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