



## Multilevel stenting of malignant colonic obstructions from multilevel breast cancer colonic metastasis

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Breast cancer frequently metastasizes to the bones, lungs, brain, and liver, whereas colonic metastasis from breast cancer is rare, with only a few cases reported to date.<sup>1</sup> Colonic obstruction causes electrolyte and fluid imbalances and increases the risk of bowel necrosis and perforation, which can be life-threatening.<sup>2</sup> The use of self-expanding metallic stents (SEMSs) was first reported in 1991, and SEMSs have been used in recent years for the palliation of malignant colonic obstruction.<sup>3</sup> Studies have identified variations in the outcomes of SEMS placement when comparing patients with colorectal cancer and those with extracolonic malignancies.<sup>4-6</sup>

Although stent placement has been used for colonic obstruction, the ability to palliate a patient with multilevel metastases, via endoscopy, has yet to be described. In this case, we demonstrate the use of multilevel SEMSs for colonic obstructions in a patient with metastatic breast cancer to the colon.

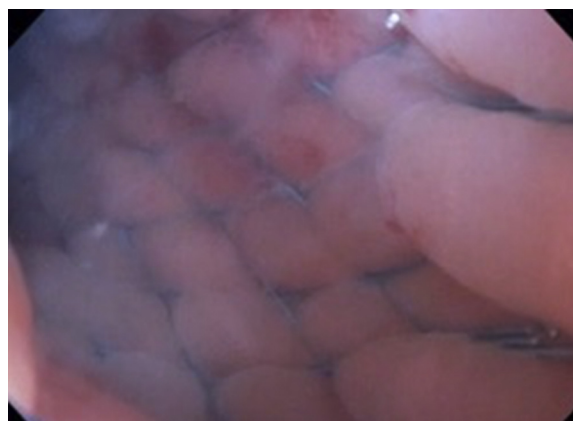
A 54-year-old woman with known stage IV breast cancer presented with colonic obstruction. Magnetic resonance enterography showed 3 distinct colonic obstructions, and colonoscopy showed proximal, middle, and distal strictures that were all biopsied and revealed metastatic breast cancer.

An upper endoscope (Olympus America, Chelmsford, Mass, USA) was introduced into the colon to the distal and middle strictures. The upper endoscope was advanced up to the proximal stricture, marking each of the 3 strictures with endoclips fluoroscopically. 0.035-inch  $\times$  450-cm long guidewire was then introduced through the endoscope, past the oral end of the proximal stricture, and coiled into the proximal colon. The upper endoscope was exchanged for an adult colonoscope, which was then advanced over the guidewire to the distal stricture. The middle and distal strictures were dilated using a wire-guided controlled radial expansion 10- to 12-mm balloon (Fig. 1), allowing for colonoscope advancement to the proximal stricture.

A 12-mm biliary balloon was used to inject contrast under fluoroscopy, revealing a tight 60-mm stenosis. Next, a 22-mm  $\times$  90-mm uncovered SEMS (Boston Scientific, Marlborough, Mass, USA) was bridged across the stricture and deployed under endoscopic and fluoroscopic guidance. A 12-mm balloon was again advanced over the wire. The endoscope was slowly withdrawn to the middle stricture,



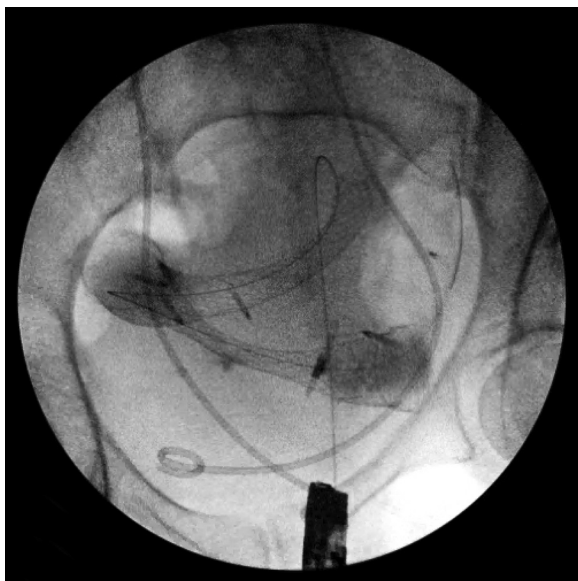
**Figure 1.** Endoscopic view showing balloon dilation of the distal stricture.



**Figure 2.** Endoscopic view within the stent.

and another 22-mm  $\times$  120-mm uncovered SEMS was deployed in the same fashion, covering middle and distal strictures.

Carbon dioxide insufflation was used, and the colonoscopy easily traversed the stents into the descending colon (Fig. 2). Contrast was injected through the stent, demonstrating stents in place (Fig. 3). The colonoscopy was withdrawn, and the procedure was concluded. The



**Figure 3.** Fluoroscopic view after contrast injection, demonstrating stent in place.

postprocedural radiograph showed stents in place, and an examination showed a soft abdomen with no tenderness. The colonic obstructions were successfully palliated. After 1 year of follow-up, the patient had no complaints or adverse events.

Our case demonstrates the successful use of multilevel SEMSs for colonic obstructions from breast cancer metastases. The procedure was performed with only water insufflation and under fluoroscopic guidance. We show that dilating the distal stricture using a wire-guided controlled radial expansion balloon allowed for colonoscope passage and facilitated the deployment of the stent; the same technique can be repeated for other obstructions.

Stent placement of multilevel colonic obstructions via endoscopy to palliate a patient with multilevel metastases

is safe and effective when done under fluoroscopic and endoscopic guidance (Video 1, available online at [www.VideoGIE.org](http://www.VideoGIE.org)).

## DISCLOSURE

*Dr Mok is a consultant for Medtronic and ConMed. All other authors disclosed no financial relationships.*

*Abbreviation: SEMS, self-expanding metallic stent.*

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<https://doi.org/10.1016/j.vgie.2021.12.012>