

# New Procedure for the Treatment of Colorectal Neoplastic Obstructions

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**PURPOSE:** A new procedure for the treatment of colorectal neoplastic obstructions is described. **METHODS:** This procedure involves the following phases: 1) placing a stent at the point of the stenosis of the colon, which enables the acute obstruction phase to be overcome; 2) recovering the general state of the patient, analyzing the development of the disease, and mechanically preparing the colon; 3) performing regulated and final surgery. **RESULTS:** In two patients, these three phases have been completed without complication and with excellent results. **CONCLUSION:** This procedure is both safe and effective and could become the method of choice for the treatment of colorectal neoplastic obstructions. [Key words: Colorectal neoplasms; Colonic neoplasms; Intestinal obstruction; Stents; Endoprotheses; Surgical technique]

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It has been demonstrated that the risk of surgical morbidity and mortality is greater in patients with obstructive carcinoma of the colon than in patients with nonobstructive carcinoma.<sup>1</sup> For treatment of these obstructions, staged interventions are still the most widespread procedure used by many surgeons.<sup>1</sup> Intraoperative lavage of the colon and subtotal colectomy are very frequently reserved for specially selected patients,<sup>2,3</sup> and their use has not become generalized. A new and original procedure for the treatment of neoplastic colorectal obstruction is described.

## REPORT OF TWO CASES AND TECHNIQUE

Two patients, ages 67 and 83, were referred for intestinal occlusion of four and six day's devel-

opment, respectively. Radiologic study showed an obstruction of the left colon caused by sigma neoplasia. Under fluoroscopic control, a 40-mm long, self-expanding Wallstent® (Schneider, Bülach, Switzerland), 22 mm in diameter, was placed at the neoplasia site, after having penetrated this with a "super stiff" guidewire (Cook Europe, Bjaeverskov, Denmark), which was introduced anally with the help of a Berenstein catheter (Bard, Usci Division, Billerica, MA) (Fig. 1).

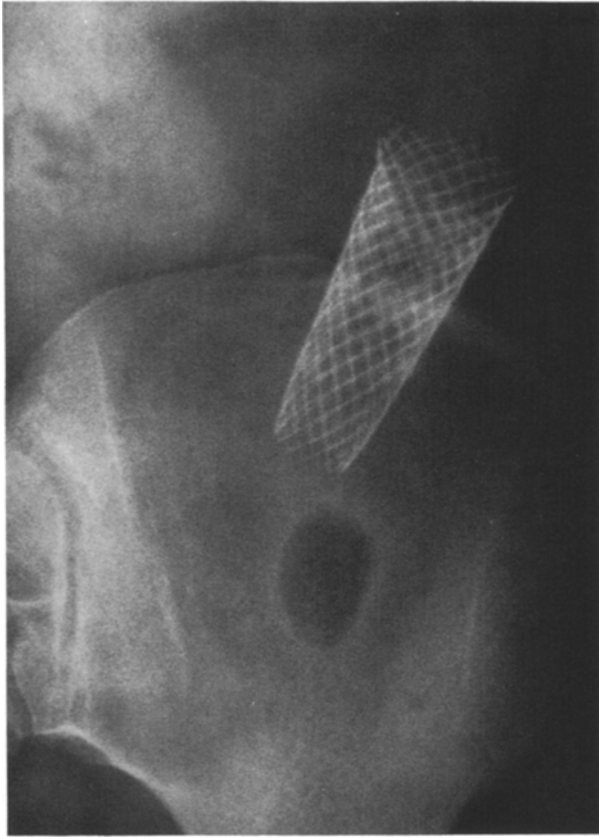
Intestinal transit with abundant defecation was recovered on the same day. On the following days, study of the extent to which the disease had spread was carried out. Five days later, mechanical preparation of the intestine was performed by means of administration of polyethylene glycol; tolerance was perfect, and surgery took place the following day. The sigma was resected with colorectal anastomosis, and the colon was cleaned well. Postoperative process was without complication.

## DISCUSSION

It has been demonstrated<sup>4,5</sup> that during surgery for resection of intestinal tumors, mortality is lower in patients who are well prepared and when surgery is regulated and elective. This procedure is simple to perform, enables the acute phase of colorectal neoplastic occlusion to be overcome without surgery, and allows the ideal general situation of the patient to recover so that the colon can be properly prepared to face the final phase of the procedure, that is, regulated and final surgery, in the best possible condition. Prior to surgery, a study can be made of the development of neoplastic disease in the usual fashion and even by colonoscopy.

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**Figure 1.** Radiograph of the patient after a stent was placed in the sigma.

Optionally, for unextirpable tumors, disease that has spread, or high-risk patients, the stent can prove to be the final treatment for colorectal stenosis, as has recently been described in two cases in which it was used in a scheduled and palliative way for malignant strictures.<sup>6</sup> We have had the opportunity of using this method in another case.

In the present cases, a stent designed for the esophagus was used, but this fact did not lead to complications in the colon. The stent can be placed simply by radiologic means. Nonetheless, where the sigma is especially tortuous, colonoscopy can help to situate the guidewire in the area of the tumor.

These preliminary cases demonstrate high tolerance related to this method. The procedure described could become the method of choice for treatment of colorectal obstructing tumors. Broader studies, to be performed in several centers that have already been initiated, will be able to assess this possibility in the future.

### REFERENCES

1. Leitman IM, Sullivan JD, Brams D, Decosse JJ. Multivariate analysis of morbidity and mortality from the initial surgical management of obstructing carcinoma of the colon. *Surg Gynecol Obstet* 1992;174:513-8.
2. Barillari P, Aurello P, De Angelis R, Valabrega S, Ramacciato G, D'Angelo F. Management and survival of patients affected with obstructive colorectal cancer. *Int Surg* 1992;7:251-5.
3. Patel JC, Renier JF, De Cervens TH, *et al.* Place de la colectomie subtotale en urgence dans les occlusions neoplasiques du colon gauche. *Chirurgie* 1991;117:329-32.
4. Murray JJ, Schoetz DJ, Collier JA, Roberts PL, Veidenheimer MC. Intraoperative colonic lavage and primary anastomosis in nonelective colon resection. *Dis Colon Rectum* 1991;34:527-31.
5. Morel PH, Egeli RA. Results of operative treatment of gastrointestinal tract tumors in patients over 80 years of age. *Arch Surg* 1989;124:662-4.
6. Itabashi M, Hamano K, Kameoka S, Asahina K. Self-expanding stainless steel stent application in recto-sigmoid stricture. *Dis Colon Rectum* 1993;36:508-11.