One-stage Subtotal Colectomy with Anastomosis for Obstructing Carcinoma of the Left Colon

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Fourteen cases of severe obstructing carcinoma of the left colon were treated by emergency subtotal colectomy and ileorectal or ileosigmoid anastomoses. There was one death after two months and a further two septic postoperative complications. Follow-up stretched from two to 39 months (an average 13.7 months). One patient died of a myocardial infarction after 11 months and another of liver metastases after 21 months. Two patients were lost to follow-up at 12 and 25 months, and nine patients remain alive and well, free of disease. The last nine cases were consecutive, and two additional patients with obstruction had only colostomy performed due to their poor conditions. A staged approach to treatment reduces long-term survival as well as inducing a high cumulative mortality and morbidity rate. Colostomy also reduces the quality of life for the elderly patient. Results of this form of treatment are surprisingly good, and it is advocated as the treatment of choice for the vast majority of patients. [Key words: Carcinoma; Colon; Obstruction; Resection]

The treatment of obstructing carcinoma of the left colon carries a high morbidity and mortality. Goligher and Smiddy have shown that results can be improved using a staged approach rather than performing a primary resection. Others have also stated their preference for an initial decompressing colostomy followed later by resection of the tumor and then colostomy closure.

Fielding and Wells have cast doubt on the advisability of postponing the tumor resection. They have shown that five-year survival figures after primary resection of an obstructing carcinoma were considerably better than those following a staged resection, in spite of a slightly higher surgical mortality rate in the former groups.

There is general agreement that the treatment of choice for an obstructing carcinoma of the right colon is emergency right hemicolectomy. However, the treatment of obstructing left colonic carcinoma still remains a surgical problem.

We have attempted to solve this problem and present our experience using a one-stage subtotal colectomy and ileosigmoid or ileorectal primary anastomosis. The principle of using small bowel and joining it to large bowel distal to the tumor is similar to that of emergency right hemicolectomy. The patient can thus be treated in one stage, in a radical fashion, with a very acceptable morbidity and mortality rate and without the necessity of a stoma.

Materials and Methods

Between the years 1977 and 1981, we performed 14 emergency subtotal colectomies with ileosigmoid or ileorectal anastomoses for obstructing carcinoma of the left colon (Figs. 1 and 2). Initially, the operation was performed on selected patients. Because of the extremely good postoperative course, indications for the operation were widened. Over the last two years, all patients with left-sided intestinal cancer obstruction were treated by emergency subtotal colectomy unless there was a strong contraindication. Of the 11 patients with severe complete left-sided colonic obstruction so presenting in the last two years, only two had decompressing colostomy.

The definition of obstruction implied absolute constipation and grossly distended bowel, both on x-ray and on surgery, usually with evidence of the large bowel having "suffered." In cases where obstruction was incomplete, and the bowel was healthy enough, a local resection with colocolic anastomosis was performed with full preoperative bowel preparation.

The ages of the patients varied between 62 and 80 years (average 72 years) (Table 1). There were nine men and five women. Associated diseases included heart disease in four patients, hypertension in three, diabetes in three, and histories of a previous malignancy in three. Other conditions occurring included peripheral vascular disease, duodenal ulcer, and nephrolithiasis. The surgery performed was subtotal colectomy in all patients, with ileosigmoid anastomosis in nine instances and ileorectal anastomosis in five. In three of the patients, automatic stapling was used which reduced contamination and shortened the operation. In addition, a right partial hepatectomy for a solitary metastasis was carried out in one patient, cholecystectomy for stones in two patients, and splenectomy as a result of operative trauma in one patient.
The site of the tumor (Fig. 3) was at the splenic flexure in four patients, the descending colon in one, the sigmoid colon in four, and the rectosigmoid in five patients. Dukes' staging was stage B in five patients, stage C in seven, and stage D in two.

Results

The average hospital stay was 18 days. With the exception of one patient, who died after two months, the average stay dropped to 15 days. Complications (Table 1) included one death (seven percent). This patient developed an intraperitoneal abscess which was drained; however, she died of lung complications nearly two months after her operation. There were three wound infections (21 percent), two cases of pneumonia, and one patient was hospitalized for almost a month due to difficulties in stabilizing her diabetes.

Follow-up on all patients was at from two to 39 months (average 13.7 months). One patient died two months after surgery after an intraperitoneal abscess and lung complications, another died of liver metastases after 21 months, and one succumbed to a myocardial infarction 11 months after surgery. Two patients were lost to follow-up at 12 and 25 months, respectively, at which time they were free of disease. Nine patients remain alive and well and continue to attend the follow-up clinic.

As for the quality of life, no patients have a colostomy, and all have returned to normal preoperative activity. Many are working even through post retirement age. The number of stools in any day rarely exceeded three or four. This followed a period of several weeks after surgery when stools were a little more frequent in some cases.

Discussion

It is generally felt that a decompressing colostomy alone for severely obstructing left-sided carcinoma of the colon carries a patient safely over this clinical emergency. The patient can then be treated later by resection of his tumor, and later still the colostomy can be closed.

Fielding and Wells\(^5\) indicate that this approach leads to a poorer long-term survival rate than when the tumor is initially resected. In addition, colostomy creation, which is considered a small operation, carries considerable morbidity and mortality. Mirelman et al.\(^7\) found that, of 271 colostomies performed at the Lahey Clinic, there was a significant complication in 21 per cent of patients, with a 2.2 per cent mortality rate; in 118 colostomy closures, 49.1 per cent had complications, and the mortality rate was 4.2 per cent. Complications of a procedure performed in one stage can only be compared with the cumulative complications of staged procedures designed to achieve the same end. A review of colostomy closures by Mitchell et al.\(^8\) shows that mortality rates vary between 0 and 2.8 per cent and complications between 11.6 and 49 per cent.

Clark et al.\(^9\) reviewed the results of treatment of 53 patients presenting with a carcinoma obstructing the left colon. The operative mortality in 11 patients undergoing primary resection was 27 per cent. Of the remaining 42 patients, 37 per cent died—a culminating mortality of the staged resections. Carson et al.\(^10\) reported their results on 37 completely obstructing tumors of the left colon. Of 28