Crohn’s Disease as a Contraindication to Kock Pouch (Continent Ileostomy)

Jacob C. Handelsman, M.D., Lori Meg Gottlieb, M.D., Stanley R. Hamilton, M.D.

From The Johns Hopkins University School of Medicine, The Johns Hopkins Hospital, Baltimore, Maryland

Crohn’s disease is often described as a contraindication to the construction of a Kock pouch (KP), but a consensus opinion is less definite. One hundred consecutive patients with a KP were reviewed after a minimum follow-up time of 2½ years. The 95 patients with inflammatory bowel disease were analyzed for serious complications. All eight patients in whom the diagnosis of Crohn’s disease or inflammatory disease of indeterminate type was made suffered serious complications requiring resections of the pouch or continuing treatment. By contrast, of the 87 cases with ulcerative colitis, only 17 (20 percent) had complications, six of which were readily and simply corrected. Our findings suggest that Crohn’s disease should continue to be regarded as a firm contraindication to the KP procedure. It should be actively sought out preoperatively, and it should be treated aggressively if it is discovered after surgery. If such a patient requires further surgery, the KP should be removed. [Key words: Kock pouch; Continent ileostomy; Crohn’s disease]


Many surgical patients, when faced with the prospect of losing their entire colon and rectum, prefer reconstruction with a Kock pouch (KP) continent ileostomy or an ileal pouch-anal anastomosis. Unfortunately, not all patients are good candidates for these procedures because of the risk of recurrent disease, suture line failure, fistulas, or strictures. Any of these complications may lead directly to incompetence of the valve, primarily or secondary to deformity. This ensuant leakage defeats the purpose of the operation. These events may result from technical flaws, but faulty healing may also be a major cause. Pouchitis is yet another entity that may plague patients and lead to a failure.

Foremost among the causes of such complications in a KP is Crohn’s disease. It was recognized in the early 1970s that Crohn’s disease probably posed an unusual threat to these patients. Failure of healing, stricture formation, and fistula formation are well-known characteristics of this disorder, which could impair continence or intubation, thus blocking major goals of the operation. It was also known that Crohn’s disease often recurred after surgery and that a favorite site was the bowel proximal to an anastomosis. In general, a history of Crohn’s disease began to be regarded as an important contraindication to the creation of a KP. However, during recent years, there has been some tendency to regard Crohn’s disease as a less formidable threat.

We have reviewed 100 consecutive cases of KP construction to see whether our attitude of caution merited change. In evaluating these cases, we attempted to identify factors that were associated with failure, to determine whether Crohn’s disease was a factor in the failures, and to identify any pathologic features that might have concerned us more about Crohn’s disease preoperatively.

PATIENTS AND METHODS

One hundred consecutive cases of KP construction were reviewed.

These patients were all cared for and operated upon by the senior author (J.C.H.) and two other interacting surgeons of a single group, adhering to completely comparable techniques. The surgery was carried out over a period from 1975 to 1989. All patients have been followed for at least 2½ years.

Forty-seven males and 53 females ranging in age from 13 to 66 years composed the group under consideration. Eighty-four patients had a KP constructed at the time of proctocolectomy, while 16 KP procedures represented conversions from an existing standard ileostomy (Table 1).

In all cases, preoperative diagnosis was made as follows: Medical records, x-ray studies, and biopsy material from other hospitals or our own departments were reviewed. Colonoscopy and biopsies were carried out anew in any case where such studies had not been done in a period contempor-
Table 1. 100 Cases of KP

<table>
<thead>
<tr>
<th>Description</th>
<th>N: 100</th>
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<tbody>
<tr>
<td>Males: 47; females: 53</td>
<td></td>
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<tr>
<td>Age: 13–66 years</td>
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<tr>
<td>KP construction</td>
<td></td>
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<tr>
<td>At time of colectomy: 84</td>
<td></td>
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<tr>
<td>Conversion from ileostomy: 16</td>
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CROHN'S DISEASE CONTRAINDICATES KOCK POUCH

ulcerative colitis and Crohn's disease or of Crohn's disease appearing in a patient with previous ulcerative colitis exists in this case (Table 2).

Seven patients diagnosed as having Crohn's disease or indeterminate colitis at the time when the pouch was constructed developed serious complication within the first year of this operation. In two patients serious fistulas appeared, and preservation of the pouch was eventually impossible. In three patients the pouch was removed after efforts to cope medically and surgically with obstruction and leakage due to transmural disease of the stoma and outflow tract met with repeated failure from scarring or healing deficiency. Two patients require frequent or ongoing medical treatment for diarrhea, intermittent leakage, and excessive mucous secretion, with or without fever. The pouch was removed from the eighth patient 14 years after the original operation. The Crohn's disease first appeared then, primarily involving the ileum afferent to the pouch, but not the pouch proper. It was deemed prudent to resect the pouch with this bowel since florid systemic and obstruction symptoms prevailed.

Of the 85 patients with ulcerative colitis who remained in this study, 17 (20 percent) required attention for complications. Six patients underwent KP resection for recurrent valve incompetence. Five patients required surgery for correction of intestinal obstruction secondary to adhesions. Six others required minor procedures under local anesthesia to deal with stomal stricture or prolapse (Table 3). The difference in frequency of complications in these two groups of patients was impressive. In addition, the complications in patients with