Evaluating Pouch Problems

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- Complications • Inflammatory bowel disease • Ulcerative colitis
- Crohn disease • Ileal pouch-anal anastomosis

INTRODUCTION AND CLASSIFICATION OF COMPLICATIONS OF ILEAL POUCH

Approximately 20% to 30% of patients with ulcerative colitis (UC) eventually require surgery for failure of medical therapy or development of neoplasia.[1] Restorative proctocolectomy with ileal pouch-anal anastomosis (IPAA), initially described in 1978, has become the surgical treatment of choice for the majority of patients with UC who require proctocolectomy.[2] Pouch configuration with two (J), three (S), or four (W) loops of small intestine has been performed, and the J pouch has become the most commonly used one.[3] The normal configurations of the J and S pouch are illustrated in **Figs. 1** and **2**. The IPAA procedure preserves intestinal continuity, substantially decreases the risk for dysplasia, and improves health-related quality of life.[4] However, adverse sequelae related to the ileal pouch occur frequently. Recognition and proper diagnosis of those conditions are key for maintaining a healthy pouch and prolonging pouch survival.

Early complications are common after restorative proctocolectomy. The most frequent are bowel obstruction, pouch bleeding, pelvic and wound sepsis. Late complications include stricture of the anastomosis, fistula and abscess, reduced fertility,[5,6] and pouchitis.[7] Of these complications, pouchitis is the most frequent. The majority of nonmechanical pouch-related complications can be addressed without surgical intervention. However, pouch failure does occur. Pouch failure is defined as the need for permanent diversion, with or without pouch excision or revision. The reported cumulative incidence of pouch failure ranged from 4% to 10%.[8–11] A metaanalysis of 43 studies of 9317 patients showed that pouch failure rate after IPAA increases proportionally to the length of follow-up: from 6.8% with a median follow-up period of 37 months to 8.5% after more than 60 months.[11] The most common causes for pouch failure are pelvic sepsis,[12,13] chronic refractory pouchitis, Crohn disease (CD) of the pouch,[9,14,15] and pouch fistula or sinus.[16]

Based on published studies as well as the authors' clinical experience in the unique subspecialty Pouchitis Clinic at the Cleveland Clinic, the authors proposed a

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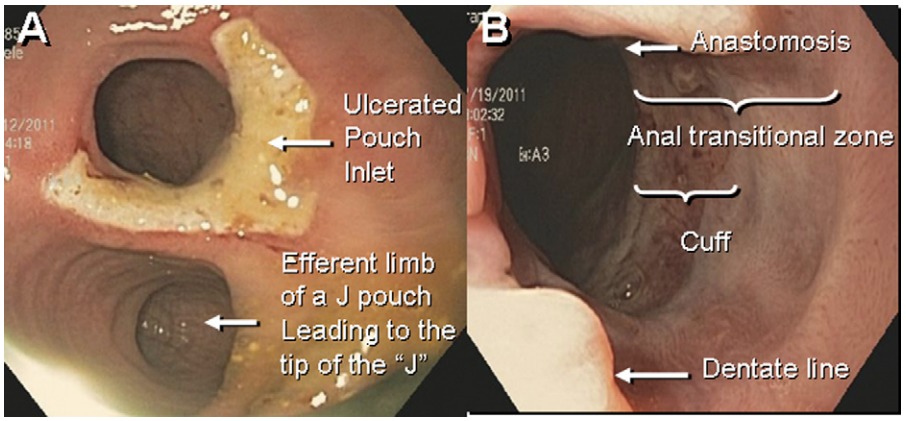

Fig. 1. (*A*) Endoscopic landmarks of the proximal part of a J pouch. An owl's eye anatomy with the pouch inlet and the opening of afferent limb. (*B*) Endoscopic landmarks of distal part of a J pouch.

classification system of pouch-related complications in 2008 (**Box 1**).[17] The complications are classified into mechanical, inflammatory, functional, neoplastic, and metabolic conditions related to the pouch by suspected underlying pathophysiologic condition. In this article, the authors provide an update for evaluation of ileal pouch disorders.

Surgical and Mechanical Complications

Surgical or mechanical complications are those adverse sequelae that are caused mainly by factors related to the surgery; these include anastomotic leaks, pelvic sepsis and abscess, pouch sinuses and fistulae, strictures, afferent limb syndrome and efferent limb syndrome, infertility,[5,6] portal vein thrombi,[18,19] pouch prolapse,[20]

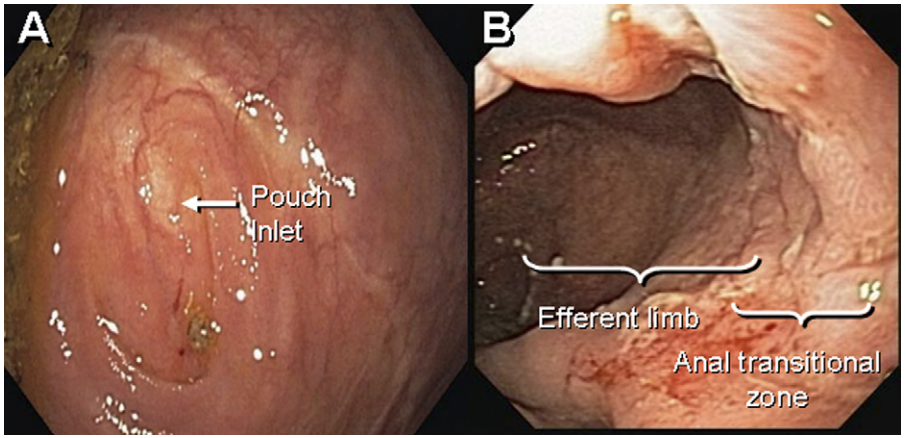

Fig. 2. (*A*) Endoscopic landmarks of the proximal part of an S pouch. Notice the absence of the owls' eye anatomy seen in the J pouch. (*B*) Endoscopic landmarks of the distal part of an S pouch. Notice the long segment between the pouch body and anal transitional zone (efferent limb of the S pouch).