Surgery May Improve Intractable Constipation

BY BRUCE JANCIN

FAJARDO, P.R. — Either transabdominal antegrade continence enema or intestinal diversion is an appropriate first-line surgical procedure in children with intractable constipation, according to results of a Massachusetts General Hospital study.

In contrast, primary colonic resection is not a good initial operation for medically refractory constipation. Its failure rate was nearly 80% in this study, Dr. Emily R. Christison-Lagay reported at the annual meeting of the American Pediatric Surgical Association.

"Our current practice is to perform an ACE [antegrade continence enema] procedure in any patient with some evidence of colonic motility and to recommend diversion for those with colonic anergia by early manometry. While the success rate of ACE is less than that of diversion, it is also associated with fewer complications," explained Dr. Christison-Lagay of the Boston hospital.

Constipation accounts for up to one-quarter of all pediatric gastroenterology evaluations. Its myriad possible causes include colonic dysmotility, pelvic floor defects, functional disorders of the anorectum, and behavioral disorders.

Most affected patients respond to dietary modification and/or medications, but surgery is considered for the small percentage of patients with debilitating constipation who fail medical management.

Because the best surgical strategy for pediatric intractable constipation is not well defined, Dr. Christison-Lagay and her coinvestigators conducted a retrospective study of 45 consecutive patients who underwent one of the three leading procedures: ACE, enteral diversion, or colonic resection.

The patients were a mean of 9 years old, ranging in age from 4 months to 26 years. A total of 16 underwent ACE, 9 had a primary colonic resection, and 20 had primary intestinal diversion.

A satisfactory outcome was defined as passage of stool at least every other day with minimal fecal soiling or—in the case of diversion—a functional enterostomy with regular stool output and no abdominal distention.

Satisfactory results were achieved in 10 of 16 patients in the ACE group. Responders showed improved colonic motility on manometry 1 year post ACE. The responders began daily colonic enemas 1 week post ACE. At 24-month follow-up, all were still using colonic enemas, albeit at a lesser frequency in some cases.

Patients under age 12 had significantly greater success with ACE. A lack of cooperation in administering enemas on the part of teenage patients was cited as a significant contributor to treatment failure.

Of the six nonresponders with persistent constipation, four had a subsequent surgical procedure and two used medical management.

"Unlike some other groups, we haven't found ACE success is predicted by preoperative colonic motility studies. Some patients with total colonic anergia actually do well with ACE, and some with apparently normal motility do poorly with ACE," Dr. Christison-Lagay said.

Satisfactory outcome was achieved in 18 of 19 patients who underwent primary enteral diversion with either colostomy or ileostomy. Fourteen eventually had reestablishment of intestinal continuity at a mean of 27 months post diversion, in five cases by simple colostomy or ileostomy reversal and in nine by left colectomy. The decision in favor of left colectomy at the time of reversal was based on motility studies showing dysmotile colon.

Intestinal diversion was associated with numerous complications, notably stomal prolapse, which occurred in 40% of patients.

Only two of nine patients who underwent primary resection had satisfactory outcomes. Four nonresponders remained severely constipated, and three had fecal incontinence. Four of the nine patients underwent further surgery.

Pathologic reports categorized 30% of all study participants as having neurointestinal dysplasia and 20% as having hypovitaminosis. The rates were similar across the three surgical treatment groups. ■