

Images in surgery

This section features outstanding photographs of clinical materials selected for their educational value or message, or possibly their rarity. The images are accompanied by brief case reports (limit 2 typed pages, 4 references). Our readers are invited to submit items for consideration.

Perforated Meckel's diverticulum

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A 72-year-old woman had abdominal pain, nausea, vomiting, and fever. An appendectomy had been performed 50 years earlier. Physical examination was notable only for periumbilical pain and abdominal rigidity. No abdominal mass or vascular sounds were noted. The white blood cell count was 21,000. Liver function studies and urinalysis were normal. An abdominal ultrasound showed no sign



Figure. Intraoperative appearance of perforated Meckel's diverticulum.

of free fluid, liver disease, choleliths, or bile duct obstruction. An exploratory laparotomy was done, and a perforated mass approximately 80 cm proximal to the ileocecal valve was found (Figure). We resected a segment of the ileum including the mass. Pathologic examination showed a perforated Meckel's diverticulum with gastric mucosa. The patient had an uncomplicated postoperative course and was discharged on the eighth postoperative day.

DISCUSSION

Meckel's diverticulum is caused by the failure of the omphalomesenteric duct to recede during weeks 5 to 7 of gestation.¹ Elderly patients commonly present with severe illness. Inflammation of the diverticulum may mimic acute appendicitis and be operated on as such.² While more than 50% of childhood cases present with intestinal obstruction or rectal bleeding, elderly patients are often found to have inflammation.² In the majority of symptomatic cases, ectopic gastric tissue is present on histologic examination; however, pancreatic or small

bowel tissue can also occur in the diverticulum.² Gastric tissue contains acid-secreting parietal cells that may cause inflammation, bleeding, and ulceration and lead to perforation.^{2,3} Debate continues as to whether to resect a diverticulum found incidentally during laparotomy. Some authors favor removal² while others support conservative management.⁴ In cases of symptomatic presentation, exploratory laparotomy and resection should be done. An advance in recent years has been laparoscopic-assisted resection of Meckel's diverticula and intestinal duplication cysts.³

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