Gangrene of Meckel's diverticulum is uncommon and its pre-operative diagnosis is difficult. We report three cases with different presentations — simulating acute appendicitis, intestinal obstruction, and strangulation of the bowel. [Indian J Gastroenterol 2003;22:232-233]

Key words: Congenital diverticulae, intestinal diverticulae, vitello-intestinal duct

Meckel's diverticulae are usually wide-mouthed, capable of self-emptying, and have scanty lymphoid tissue; hence acute inflammation is less common. Infarction leading to gangrene is very rare. We report three such cases with different presentations.

Case 1: A 23-year-old man presented with pain in the lower abdomen and vomiting since 14 hours. There was tenderness in the right iliac fossa, with rebound tenderness. General examination and per rectal examination revealed no abnormality. A diagnosis of acute appendicitis was made. Total white cell count was high. At surgery through McBurney's incision the appendix appeared normal. When the terminal ileum was delivered out, a 10-cm-long, black Meckel's diverticulum was seen. Wedge resection of the affected area was done and the bowel was closed in 2 layers. The patient recovered uneventfully and was discharged on the 7th postoperative day.

Case 2: A 30-year-old woman was admitted with fever, vomiting, constipation and distention of the abdomen since 3 days. She had undergone normal vaginal delivery a day prior to admission to this hospital. General examination showed pallor and signs of dehydration. Bowel sounds were absent on the abdomen. Bowel sounds were absent. The uterus was palpable 5 cm below the umbilicus. A diagnosis of paralytic ileus following intestinal obstruction or post partum sepsis was made. At laparotomy through a right paramedian incision, straw-colored ascitic fluid was drained and a whitish-grey band was seen to encircle the ileal loop. On releasing the band, a gangrenous Meckel's diverticulum was seen, with the band arising from the apex of diverticulum, curving around the ileal loop and adherent to the base of its mesentery (Fig). Wedge resection of the ileum bearing the gangrenous diverticulum was done and bowel continuity was restored by double-layer closure of the ileum.

Gangrene of Meckel's diverticulum

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Fig: Per-operative photograph of ileum loop (Case 2) showing gangrene localized to Meckel's diverticulum
On the 6th postoperative day the patient developed superficial wound dehiscence, which healed in 2 weeks with daily dressing.

**Case 3:** A 7-year-old boy was admitted with pain in the abdomen for 3 days and abdominal distension with constipation for 2 days. The pain was initially colicky around the umbilicus, associated with vomiting, and then became diffuse and generalized. He developed features of intestinal obstruction and was admitted to the hospital. General examination showed pallor, dehydration and tachycardia. The abdomen showed features of acute intestinal obstruction with generalized tenderness and rebound tenderness. Per rectal examination was normal. X-ray abdomen showed multiple air-fluid levels. A diagnosis of strangulated bowel was made. At exploration through a supra-umbilical transverse incision, ileal mesentery showed large lymph nodes with a gangrenous Meckel's diverticulum adherent to them. The bowel loops trapped under this band were dusky but were confirmed to be viable. Segmental resection of the ileum bearing the diverticulum was done. Ileo-ileo anastomosis was done in two layers. The patient was discharged on the 8th postoperative day.

In 75% of cases Meckel's diverticulum produces no symptoms. In the remaining, some of the complications can be life-threatening. Attachment of the diverticulum to the umbilicus can initiate its axial rotation. A band arising from the apex of the diverticulum can also be attached to the ileal mesentery, causing the small bowel to herniate under it. Meckel's diverticulum can occasionally present in the hernial sac of the inguinal or the femoral hernia, known as Litter's hernia, and rarely it can get strangulated.

Post-inflammatory gangrene is rare. Gangrene of the diverticulum can also result from infection following its axial rotation around the cord attachment to the umbilicus. Ingestion of slow-release iron tablets has been associated with gangrene of the diverticulum. It must be noted that Meckel's diverticulum may have a separate vasculature. This was probably why gangrene was localized solely to the diverticulum in our patients.

**References**


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Reversible posterior leukoencephalopathy due to oral cyclosporine in severe ulcerative colitis

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We report a rare neurological complication, posterior leukoencephalopathy, occurring with oral cyclosporine use in a 44-year-old woman with severe ulcerative colitis. The condition reversed on discontinuation of the drug and correction of associated factors. [Indian J Gastroenterol 2003;22:233-234]

**Key words:** Inflammatory bowel disease

Cyclosporine A is an effective alternative to surgery for the treatment of steroid-refractory ulcerative colitis. However, its use is associated with adverse effects such as nephrotoxicity, hypertension, hyperparathyroidism, opportunistic infections, and neurotoxicity. Cyclosporine-induced neurotoxicity presents with tremors, paraesthesia, seizures, confusion, psychosis, motor deficits, ataxia, and rarely visual disturbances. We report a patient with severe ulcerative colitis who developed reversible posterior leukoencephalopathy syndrome (RPLS) while on cyclosporine therapy.

A 44-year-old woman was admitted with bowel movements greater than 10/day with frank blood and pus, and moderate left lower quadrant pain. She had been diagnosed about 8 years ago as having ulcerative colitis, and her disease had been well controlled with oral 5-ASA and short courses of steroids. She had mild hypertension controlled with amlopidine, tubular lymphadenitis 6 years back, and surgery for spine 4 years back. There was no earlier history of neurological illness.

At admission she was febrile and appeared pale. Abdominal examination showed mild tenderness. Rest of the systemic examination was normal. Laboratory data included hemoglobin 7.3 g/dl. leukocyte count 12000/cumm (polymorphs 78%). ESR 47 mm in 1st hour, and serum albumin 2.8 g/dl. Other biochemical tests were normal. Stool microscopy and culture and blood culture were negative. Ulcerative colitis disease activity index score was 253 (severe disease). Colonoscopy revealed diffuse hyperemia, edema and friability with small discrete ulcerations in between. Pseudopolyps were present.

She was treated with bowel rest, hydrocortisone (100 mg IV 8 hourly), antibiotics, and albumin and blood transfusion. After initial response her condition worsened on the 7th day with increased stool frequency and profuse bleeding per rectum. She required 4 units of blood over the next three days. As she was reluctant for surgery, cyclosporine oral microemulsion (Neoral; Novartis) was started on day 10. Her general condition improved with a decrease in stool frequency and rectal bleeding, but 8 days after initiation of Neoral she complained of severe throbbing headache and visual hallucinations, followed by two episodes of generalized tonic-clonic seizures. She was managed with intravenous lorazepam and phenytoin; cyclosporine was discontinued. She subsequently complained