

CASE NOTE

Perforated obturator Littre hernia

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Meckel diverticulum and obturator hernia are rare causes of intestinal obstruction. We present the unique case of an elderly woman with acute abdomen secondary to the coexistence of both these conditions.

CASE REPORT

A 75-year-old woman presented with a 5-day history of abdominal pain, constipation and vomiting. Her symptoms followed acute gastroenteritis, which was managed conservatively at another centre. She was also experiencing obscure pain in her right knee.

On examination, her body mass index was 16, and she was dehydrated. Abdominal examination revealed central distention with visible bowel coils. There were no signs of peritonism, but bowel sounds were absent. External hernial sites were normal. Pelvic examination revealed a full-thickness rectal prolapse and complete uterine procidentia.

Her total white blood cell count was $13.4 \times 10^9/L$, and her serum albumin level was 5 g/L. A contrast-enhanced spiral computed tomography (CT) scan of the abdomen confirmed the plain abdominal radiographic finding of dilated small bowel loops in addition to an abrupt termination at the terminal ileum. With a working diagnosis of acute small bowel obstruction, the patient underwent laparotomy pending a final report by the senior radiologist (Fig. 1). Laparotomy revealed a perforated Meckel diverticulum herniating into the obturator canal. The neck of the hernia formed a ring of constriction at the base of the diverticulum where it had perforated (Fig. 2). In view of the

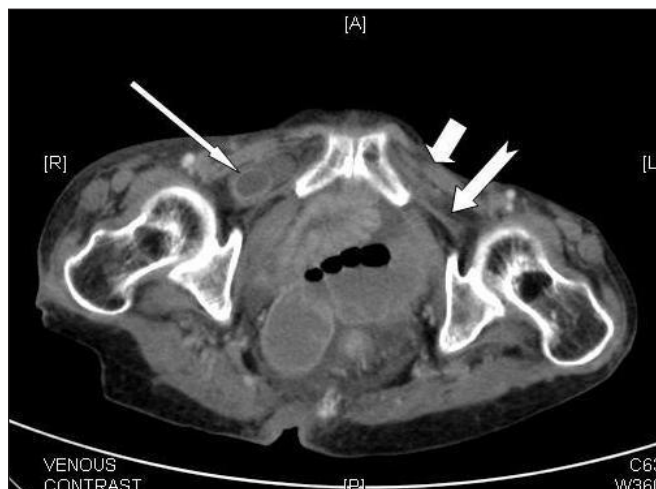


Fig. 1. Computed tomography scan showing a right obturator hernia (thin arrow) containing a perforated Meckel diverticulum. Contralateral pectineus (bold arrow) and obturator externus (notched arrow) muscles are depicted for comparison.

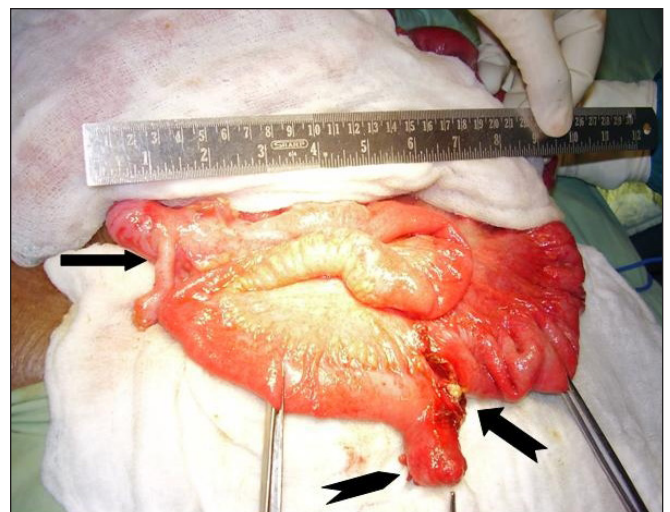


Fig. 2. Perioperative photograph illustrating perforation (notched arrow) at the base of a congested Meckel diverticulum (chevron) identified at 2 feet from the appendix (bold arrow).

patient's age and other comorbid factors, we resected the ileal segment containing the perforated Meckel diverticulum and fashioned an end-ileostomy with closure of the distal loop. Postoperatively, the patient required ventilation and total parenteral nutrition. She recovered well, left the hospital in 2 weeks, and re-established intestinal continuity 3 months later. She declined any treatment of the rectal and uterine prolapse.

DISCUSSION

Obturator canal hernia has a reported incidence of 1%.¹ This hernia passes through the obturator foramen, following the path of the obturator nerves and muscles. Clinical diagnosis of an obturator hernia is extremely difficult, notwithstanding the 4 cardinal clinical signs: acute intestinal obstruction, pain in the right hip radiating to the anterior aspect of the thigh and knee (the Howship–Romberg sign), repeated episodes of bowel obstruction that resolve without intervention and a palpable mass in the proximal medial aspect of the thigh. Other less common signs include the loss of the adductor reflex due to compression of the obturator nerve, eponymously known as the Hannington–Kiff sign; ecchymoses in the upper medial thigh due to effusion from strangulation; and a mass palpable laterally on vaginal examination. The patient, often a multiparous, elderly woman, is debilitated and wasted. This presentation has earned it the nickname, “little old lady’s hernia.”

Obturator hernias occur with a female-to-male ratio of 6:1 and may be bilateral in 6% of cases. A wider pelvis and larger obturator canal in women could explain this. The hernia most commonly contains small bowel. Methods of repair vary from a simple suture closure or biological tissue closure (using autogenous tissue like broad ligament, ovary or uterus) to polypropylene mesh placement during either

a laparotomy or laparoscopy. Mortality in obturator hernia is 11%–70%, among the highest noted in the abdominal hernias.^{2,3}

Littre described Meckel diverticulum in a hernia in 1700.^{2,4} A true Littre hernia contains a Meckel diverticulum alone, but a mixed Littre hernia contains ileum or other abdominal viscera as well. Perforation may be due to either peptic ulceration or compromised circulation and luminal patency at the narrow neck of the hernia. A literature review suggests that a Littre hernia can occur in femoral, ventral, paraumbilical, sciatic and lumbar hernias, and even as a complication of a laparoscopic port-site hernia.⁵

Our patient's case highlights that a Littre hernia can also arise in an obturator hernia and that it needs a high degree of clinical suspicion as well as a CT scan to confirm diagnosis. The interesting aspect of our patient's case was the perforation of the Meckel diverticulum and its herniation into the obturator canal. To our knowledge, ours is the first report in the published English-language literature that highlights one of the rarest positions for a perforated Littre hernia.

Competing interests: None declared.

References

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