

An alternative management of a Littré hernia case: food for thought

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SUMMARY: An alternative management of a Littré hernia case: food for thought.

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Aim. We present a novel approach to a Littré hernia case.

Case report. A 62-year old male presented at our department with a painless mass in the inguinal area and was successfully treated for an inguinal Littré hernia. A Lichtenstein tension-free

mesh repair was used without performing simultaneous diverticulectomy.

Discussion. Resection of an asymptomatic Meckel's diverticulum remains a controversial issue. In adult population, leaving an accidentally found silent Meckel's diverticula in situ could reduce the risk of postoperative complications without increasing late complications. Mesh-based techniques provide lower recurrence rates compared to non-mesh techniques.

Conclusions. Management of asymptomatic Littré hernias presents a challenge for the operating surgeon. Treatment guidelines should be developed for the optimal management of these patients.

KEY WORDS: Littré hernia - Meckel's diverticulum - Inguinal hernia - Rare hernia - Case report.

Introduction

Originally described in 1785 by the French anatomist, Alexis de Littré, Littré hernia is a rare entity with its exact incidence still not being clearly defined (1). A true Littré hernia contains Meckel's diverticulum as the sole hernia sac component, while the concurrent presence of other abdominal viscera signifies a mixed Littré hernia. Symptoms are similar to hernias involving intestinal loops but their progress is regularly more gradual. Ultrasonography, plain X-rays and CT scans are useful diagnostic modalities, but definite diagnosis is often made intraoperatively.

Meckel's diverticulum is a common congenital anomaly of the gastrointestinal tract and has a preva-

lence ranging from 0.3 to 2.9% in the adult population (2, 3). It is a result of the incomplete atrophy of the omphalomesenteric duct in the embryo and is usually found 20 to 90 cm from the ileocecal valve (4-6). Patients typically present without symptoms, while only 4.2% of the patients experience related complications (7). Gastrointestinal bleeding, bowel obstruction and inflammation are the principal complications concerning both adults and children (8, 9). The resection of symptomatic Meckel's diverticula is a common practice, but there is still debate regarding the management of incidentally found asymptomatic ones (10-12).

We present a case of a 62-year-old male patient, who was successfully treated at our department for an incarcerated inguinal true Littré hernia.

Case report

This case presentation was conducted according to the Declaration of Helsinki and CARE Guidelines

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(Consensus-based Clinical Case Reporting Guideline Development) and an informed patient's consent was obtained (13). A 62-year old healthy man of Romanian origin presented to our department with a painless mass in the right inguinal area. His past medical history was unremarkable. At admission, he was afebrile and his abdomen was soft, painless with normal bowel movements. On physical examination, a non-reducible inguinal hernia was identified with no signs of inflammation. Laboratory findings showed $5.25 \times 10^9/\text{mm}^3$ white blood cells and 5.00 mg/L C-reactive protein. Plain X-rays showed no signs of bowel obstruction. The ultrasound of the region revealed an indirect inguinal hernia containing an intestinal loop (Figure 1).

Patient was transferred to the operating room. A right inguinal incision was performed. The indirect hernia sac was dissected and carefully separated from cord structures. It revealed a 2.5 cm in length and 2 cm in diameter Meckel's diverticulum (Figure 2). No signs of inflammation or necrosis were present. There were no adhesions with the abdominal wall, the surgical field was clear and the diverticulum was located approximately 70 cm from the ileocecal valve. Reduction of the herniated Meckel's diverticulum was performed and a Lichtenstein tension-free

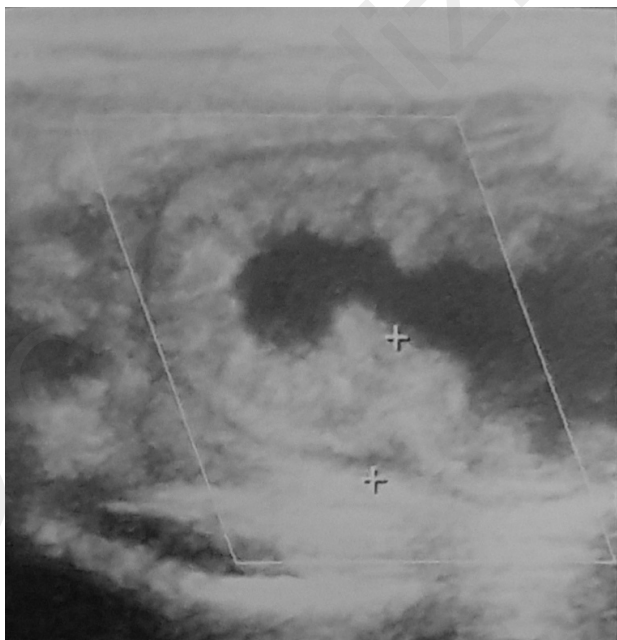


Figure 1 - Inguinal ultrasound showing an intestinal loop included in an indirect inguinal hernia.



Figure 2 - Meckel's diverticulum during hernia sac opening.

mesh repair was used to close the inguinal defect (Figure 3).

The patient recovered well from surgery with no systemic or local complications. He was discharged on 3rd postoperative day. Patients' general condition was excellent and surgical wound healed well one month postoperatively.

Discussion

Approximately 1% of patients having a Meckel's diverticulum will eventually suffer from a Littre hernia (14). Given their rare nature, no definite guidelines are currently available concerning their optimal treatment approach. Several studies support both the resection of Meckel's diverticulum as well as the repair of the hernia with or without use of a mesh (6, 15-18). To our knowledge, this is the first report of an inguinal Littre hernioplasty without concurrent diverticulectomy.



Figure 3 - Lichtenstein tension-free mesh repair.

Following the incidental discovery of an asymptomatic Meckel's diverticulum in the hernia sac we faced a dilemma concerning the optimal surgical treatment. The 2009 European Hernia Guidelines advocate that male adults over the age of 30 presenting with an inguinal hernia should be treated using a mesh-based technique (19). Use of mesh is considered the optimal approach to enhance abdominal wall stability and decrease risk of local recurrence (20, 21). On the other hand, a potential diverticulectomy could compromise outcomes and lead to postoperative complications, given the increased risk of field contamination with intestinal resection (18, 22). Furthermore, intestinal resection significantly increases surgical site infection in hernia repair cases (23, 24).

The therapeutic approach of incidentally found Littre hernias remains a controversial issue (10-12), whereas symptomatic cases should be resected during laparoscopic or open surgery (25). Male sex, age younger than 50 years, diverticular length greater than 2 cm and the presence of ectopic tissue were identified by Park et al. as factors necessitating prophylactic resection of an asymptomatic Littre hernia (10). In contrast, Hansen et al. recommend against the resection of asymptomatic Meckel's diverticula discovered during surgery in elderly patients (2). Furthermore, Zani et al. suggest leaving a "silent" Meckel diverticulum *in situ*, as it reduces risk of immediate postoperative complications without increasing late complications (12).

A Lichtenstein tension-free mesh repair without a

Meckel's diverticulectomy was eventually performed in our case. Considering patient age, the absence of signs of inflammation and its relatively small size, we decided not to perform a diverticulectomy since that could increase the risk of postoperative complications without offering an important benefit to patient welfare. Additionally, it could possibly compromise mesh application which could significantly decrease the recurrence risk of inguinal hernias.

Management of Littre hernias poses therapeutic dilemmas as to whether diverticulectomy should routinely be performed irreversible of the patient symptomatology. Given the lack of strict guidelines defining the optimal approach in this specific entity, reporting such rare cases could help further improve the available evidence to date.

Conclusions

Management of asymptomatic Littre hernias poses a challenge to the operating surgeon. The development of treatment guidelines will ensure optimal patients' management and reduce the risk of both immediate and late postoperative complications.

Conflict of interest and funding

All Authors have nothing to disclose and declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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