



# Umbilical Littre's hernia—lessons from a rare case

Iannish Sadien<sup>^</sup>

Department of Surgery, Cambridge University Hospitals NHS Foundation Trust, University of Cambridge, Cambridge, UK

Correspondence to: Iannish Sadien, MA, MB BChir. Department of Surgery, Cambridge University Hospitals NHS Foundation Trust, University of Cambridge, Hills Road, CB2 0QQ, Cambridge, UK. Email: isd1989@gmail.com.

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Recently, Ghorishi and colleagues report a case of an umbilical hernia which was subsequently found to contain a Meckel's diverticulum (1). Meckel's diverticulum (MD) is one of the commonest congenital malformations of the small bowel, affecting 0.3–2.9% of the population (2). Embryologically, it represents an abnormal remnant of the vitellointestinal duct, which connects the yolk sac to the midgut lumen during development. A meta-analysis of published reports estimates that the weighted mean distance of MD proximal to the ileocaecal valve is 52.4 cm (2). It affects males more frequently than females and is most frequently diagnosed between the ages of 10 and 30 (3). It is largely asymptomatic, with patients presenting with abdominal complaints in less than 5% of cases (4). About half of symptomatic patients will present with intestinal obstruction (usually secondary to intussusception with the MD as the leading point, invagination of the MD into the lumen of the small intestine or rarely as an obstructed hernia), a quarter with gastrointestinal haemorrhage and the rest with inflammation that may mimic acute appendicitis (2). Very rarely, MD may present as an abdominal wall hernia, in which case it is referred to as a Littre hernia (first described in the 1700s by French surgeon and anatomist Alexis Littre). The most common sites of Littre hernia are the inguinal canal (50%), umbilical region (20%) and femoral canal (20%) (5).

The accompanying case report highlights a few interesting points. First, there exists some controversy regarding the need for resection of an asymptomatic MD.

Zani and colleagues describe a 5.3% risk of postoperative complications after prophylactic resection of MD while the risk of developing symptoms if the MD is left *in situ* was 1.3% (4). Based on this, they estimated that more than 750 silent MDs would need to be prophylactically resected to prevent one mortality.

Second, the pre-operative diagnosis of a Littre hernia can be challenging. As they present non-specifically, diagnosis relies heavily on imaging. Ultrasound, computed tomography (CT) or magnetic resonance imaging (MRI) have all been used as imaging modalities although little work has been done to evaluate their sensitivity and specificity in picking up a MD within a hernia sac. More broadly speaking, the use of imaging to confirm the diagnosis of a clinically-apparent abdominal wall hernia is variable. Recently, a joint guideline produced by the European Hernia Society and Americas Hernia Society recommended that most umbilical or epigastric hernias should be diagnosed with clinical examination (6). The use of pre-operative imaging was suggested with patients with abdominal pain without a palpable hernia or in obese patients so that accurate measurement of the defect size can help inform the surgical approach. It is difficult to know in this highlighted case if pre-operative diagnosis of a Littre hernia would have changed the choice of operative approach but an argument could have been made for repairing the hernia defect while leaving the MD *in situ*, especially given the controversial role of prophylactic resection.

More generally, other surgical options exist for the

<sup>^</sup> ORCID: 0000-0002-3367-1252.

repair of paraumbilical hernias. These can be repaired under general or local anaesthesia (7), open or minimally invasively (8) and with or without a mesh (9). In particular, evidence suggests that mesh repairs lead to reduced recurrence rates with no increased risk of surgical site infection (SSI), haematoma or chronic pain. While the traditional wisdom has been to avoid the use of a synthetic mesh in hernia repairs involving simultaneous bowel resection, increasing evidence suggests that this practice does not lead to increased risks of SSI (10,11). Indeed, the World Society of Emergency Surgery recommend the use of a synthetic mesh for the emergent repair of hernias in a clean-contaminated field (complicated hernia with intestinal strangulation/need of concomitant bowel resection without gross enteric spillage) (12).

In summary, the case report presented by Ghorishi and colleagues highlights some pertinent questions that are applicable more broadly to general surgical practice.

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