

Littre's Hernia in Obstructed Inguinal Hernia– A rare Entity

Abstract

Littre's hernia is an extremely unusual clinical condition, defined by the presence of Meckel's diverticulum within a hernial sac. It is a true diverticulum containing all three layers of the gut. It is a presence of Meckel's diverticulum in a hernial sac however, it usually presents with obstruction or strangulation.

We present herein a rare case of a 20 years – old boy with an incarcerated littre's hernia at Right. Inguinal region, which was successfully treated by wedge resection of the Meckel's diverticulum followed by hernia repair.

Keywords

Littre's hernia, Meckel's diverticulum, Incarceration, hernia repair

Introduction

A hernia containing Meckel's diverticulum is called a Littre's Hernia. It is a rare entity and diagnosis is often an incidental finding during routine hernia repair surgery – Its name is after French physician Alexis de Littre's (1700) [3,4].

It is found at the antimesenteric border of the ileum, usually located 30-90 cm from the ileocecal valve, measuring 3 to 5 cm in length and 2 cm in diameter usual sites of Littre's hernia are inguinal (50%), Umbilical (20%) and femoral (20%).

Case Presentation

A 20 years old male patient was admitted on 15/07/2009, as a case of Right Inguinal obstructed hernia. The patient was stable hemodynamically the local examination revealed a palpable. Right Inguinoscrotal swelling of 4x3 cm in size, swelling was tense, tender and which was irreducible. A diagnosis of incarcerated Right inguinal hernia was made. The patient investigated, ultrasonography showed dilated bowel loops in the hernia sac. Abdominal radiography showed small bowel obstruction. The perioperative biochemical and hematological investigations were normal. The patient was immediately operated for exploration of Right Inguinal canal, under spinal anesthesia. Exploration of the hernia sac revealed a 3.5 cm long incarcerated non gangrenous Meckel's diverticulum in the sac. The

obstruction was released by widening the deep inguinal ring and the ileal loops were delivered in to the wound to exclude other pathologies. The diverticulum and ilium regained their normal color and blood flow. There was no gangrene of Meckel's diverticulum and small bowel. So the decision of wedge resection of the Meckel's diverticulum was made. The rest of the normal bowel was reduced back into the abdomen followed by repair of inguinal hernia with Bassini's herniorraphy. (Figure 1,2,3)

The post-operative period of uneventful the patient was discharge on seventh postoperative day. The histopathological report of resected specimen was Meckel's diverticulum and no ectopic tissue.



Figure 1- Intra-operative photograph
Showing Meckel's diverticulum of Size 3.5x 2cm

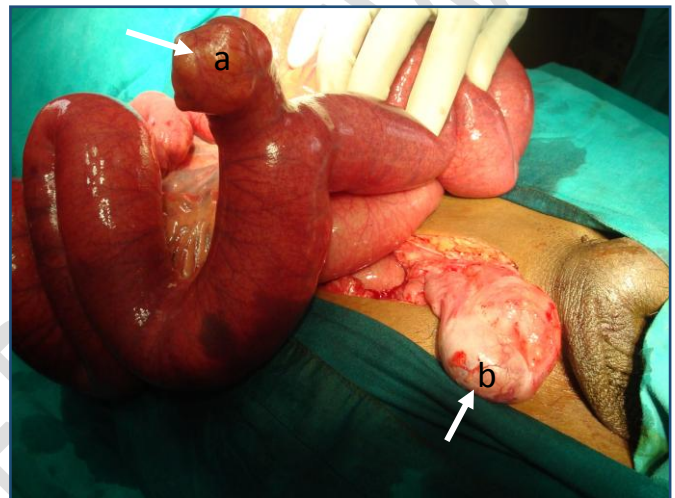


Figure 2- Intra-operative photograph
Showing a- Meckel's diverticulum, b- Rt. testis

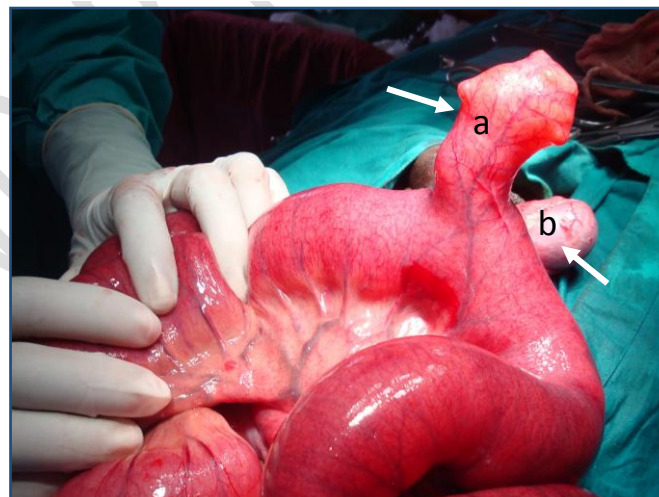


Figure 3- Intra-operative photograph
Showing a- Meckel's diverticulum, b- Rt. testis

Review of the literature

1. PubMed & Cochrane bibliographical database were searched from the beginning of time to last search 1st August 2018 for studies reporting on Littre's hernia in adult population.

Results – forty five studies reported collectively on 53 patients. 25 males and 32 females presenting with a Littre's hernia. The most common site of occurrence in adults were femoral (39.6%) and inguinal 34%. The majority of cases 77.4% concerned incarcerated hernias.

2. The review of English literature of Littre's hernia from the beginning of 20th century revealed 70 cases reported. The most common site is accepted as umbilical hernia for children's incidence of 85% even. Though the 50% of the Littre's hernia is located in the inguinal region in the adult's Littre's. Hernia is more common on Rt. Side inguinal hernias.

The presence of heterotopic mucosa of Littre's hernia is a rare finding and 66.7% of the cases with heterotopic or ectopic mucosa the formation of adhesions in the hernia sac is due to inflammatory process related to the ectopic mucosa or congestion & exudation due to close loop obstruction with Meckel's diverticulum.

The literature review containing the presented case divulged 72 cases of Littre's hernia from early 1900s to these days and by the help of these cases we aimed to discuss the features of Littre's hernia in a child. 51 of these patients present in infancy period with male gender. Even though Littre's hernia can be seen at any age.

Discussion

Littre's hernia is an extremely rare condition found in only 1 % of all cases of Meckel's diverticulum. The actual incidence reported to be only 0.09 % the "rule of 2" according to which M.D. seen in 2 % population 2 inches in length 2 cm diameter. 2 feet proximal to the ileocecal junction, usually diagnosed under 2 yrs. of age. It is 2 times more in males and symptomatic in 2% in patients. It is more common in right Inguinal hernia. Its mucosa may contains ectopic gastric tissue (in 23-50% cases) Pancreatic in (5-16% cases) and colonic tissue infrequently [2]. Most common clinical presentation in bleeding, obstruction, intussusception and inflammation (diverticulitis) [4]. Diagnosis confirmed on ultrasonography, CT scan and Technetium 99 m scan [4]. The most common presentation being an incidental findings at laparotomy or hernia surgery. The most common complication of Meckel's diverticulum was intestinal obstruction (36.5%) followed by intussusception (30.7 %), Inflammation (12.7%) and hemorrhage (11.8%) and perforation (7.3 %) [7].

Conclusion

The Meckel's diverticulum may be found in any type of hernia; Incarcerated hernia should not be attempted to reduce. In the treatment of Littre's hernia Meckel's diverticulum should be resected and it is well to perform resection and anastomosis of ileal segment.

References-

1. Schizas D, Katsaros I, Tsapralis D, Moris D, Michalinos A, Tsilimigras DI, Frountzas M, Machairas N, Troupis T. Littre's hernia: a systematic review of the literature. *Hernia*. 2019 Feb; 23(1):125-130. doi: 10.1007/s10029-018-1867-0. Epub 2018 Dec 1. PMID: 30506463.
2. Usman A, Rashid MH, Ghaffar U, Farooque U, Shabbir A. Littré's Hernia: A Rare Intraoperative Finding. *Cureus*. 2020 Oct 20;12(10):e11065. doi: 10.7759/cureus.11065. PMID: 33224659; PMCID: PMC7676821.
3. Rattan KN, Bansal S, Arora I, Dhamija A, Tanwar M. Right Inguinal Obstructed Littre's Hernia in a Child. *J Nepal Paediatr Soc* 2016;36(3):300-302.
4. Ali Bendjaballah and Moustafa A. El Taieb and S. Ammari and R. Khiali, Littre's Hernia: A Unusual Tricky Situation of Meckel's Diverticulum ,Author= year=2019
5. Henry G. Mishalany, Robert Pereyra, Jerrold K. Longerbeam, Littre's Hernia in infancy presenting as undescended testicle, *Journal of Paediatric Surgery*, Volume 17, Issue 1, 1982, Pages 67-69, ISSN 0022-3468,
6. Skandalakis PN, Zoras O, Skandalakis JE, Mirilas P. Littre hernia: surgical anatomy, embryology, and technique of repair. *Am Surg*. 2006 Mar;72(3):238-43. PMID: 16553126
7. Arzu Pampal, Elif Demirci Aksakal 1 Littre's hernia in childhood: A case report with a brief review of the literature DOI:10.4103/0189-6725.86068 PMID: 22005371
8. Narendra D. Kulkarni 1 Geet Adhikari 2 Gauri S. Jadhav Obstructed Inguinal Littre's Hernia: A Vague DOI <https://doi.org/10.1055/s-0042-1755179>