

A Case Report of Irreducible Littre's Inguinal Hernia

¹B.Kanchana*, ²G.K.Venkatachalam, ³Vivekananthan, ⁴Malika Agarwal, ⁴N Sundharrajan

ABSTRACT

Meckel's diverticulum is the most prevalent congenital abnormality of the gastrointestinal tract associated with many diverse and unusual complications has an incidence of 2- 3%. Meckel's Diverticulum is a true diverticulum comprising all intestinal layers. It is usually an incidental finding. Strangulation of Meckel's diverticulum (Littre's Hernia) is a rare anatomical form. Surgery is the mainstay of treatment. We report a very rare case of Littre hernia which is a complication of Meckel's diverticulum and presented with an irreducible mass in right inguinal site

KEY WORDS : Littre's inguinal hernia, Meckel's diverticulum, Ectopic gastric mucosa, Irreducible, Peptic ulceration.

Introduction

Littre's Hernia is an abnormal protrusion of Meckel's Diverticulum through an abdominal opening. Alexis Littre first described the condition in relation to a femoral hernia in 1770[1]. It is a very rare condition and very few cases are reported till date. Though all true "Littre's hernias" contain a Meckel's diverticulum, the involved anatomical sites differ, the most common site is inner groin (inguinal), the outer groin (femoral), and the belly button (umbilical).

¹Head of the Department, ²Associate Professor, ³Professor of Surgery ,
⁴Post Graduate, Department of General Surgery,
Aarupadai Veedu Medical College And Hospital , Pondicherry -607402

*Corresponding Author

Dr.B Kanchana,
Head of the Department,
Department of General Surgery,
Aarupadai Veedu Medical College And Hospital, Pondicherry -607402
Email id - Sundharrajan007@gmail.Com
Phone No. +919841940721

Complications of Littre's hernias include incarceration, strangulation, necrosis, and perforation. Presence of ectopic mucosa in the meckel's diverticulum is the reason for most of the complication.

Case report

An 18 years old boy was admitted in our hospital with a right sided inguino-scrotal swelling, constantly painful for 6 months. He gave no history of fever, GI bleed or altered bowel habits. On examination he had a right sided, incomplete, irreducible inguinal hernia which was an enterocele without signs of obstruction. Patient was afebrile, normotensive. His blood picture was normal and stable. He was taken up for elective surgery the second day. During surgery, an indirect sac which was thick had a meckel's diverticulum adherent to the sac, thickened and congested at the base. Possibility of ectopic mucosa or diverticulitis was thought, so resection and

reanastomosis was done through the same incision, followed by a modified Bassini's herniorrhaphy. Postoperative period was uneventful. Patient was discharged on the 10th postoperative day. Histopathology revealed a true ileal diverticulum 5 x 2 x 0.5 cms with ectopic gastric mucosa.

Discussion

Meckel's Diverticulum is a true diverticulum comprising all intestinal layers[3,5]. It is the result of a persisting vitello-intestinal duct that normally disappears by the 5th to 7th week of intrauterine life[1-4,7]. When it persists it can result in a number of diverse anomalies.

- Meckel's diverticulum
- Entero-umbilical fistula
- Umbilical sinus
- Persistent fibrous cord
- Mesodiverticular vascular band
- Omphalomesenteric duct cyst
- Strawberry umbilical tumor

Heterotopic tissue of gastric, duodenal, pancreatic, or colonic morphology in a Meckel's has been reported to occur in 6 to 17%[2]. The literature is replete with reports of complications related to Meckel's diverticulum[1-4, 6-8].

In 1700, Alexis Littre (1658-17265), a French surgeon was the first to report three cases of incarcerated femoral hernia containing a small bowel diverticulum. Since then hernia sacs containing only Meckel's diverticulum have been called Littre's hernia.1-3 Johann Friedrich Meckel (1781-1833) described diverticula of the distal ileum in 1812 and defined about the congenital origin[1-4,6].

50% of the Meckel's diverticula are in inguinal hernias, 20% in femoral, 20% in umbilical and remaining 10% in other miscellaneous hernias.

Complications of Meckel's diverticula are Haemorrhage, Obstruction , Diverticulitis, Umbilico-enteric fistula, Perforation, Intussusception , Foreign bodies, Neoplasia-benign or malignant, Peptic ulceration, Littre's hernia .

The diagnosis of a strangulated Littre's Hernia is to be made preoperatively as the presenting signs and symptoms are more subtle and appear slowly unlike strangulated small intestine [6-7, 9]. The most useful method of detection of a Meckel diverticulum is Technetium-99m scanning. It is a method depends on ulceration and bleeding because to the heterotropic gastric mucosa [8]. The symptoms and signs of intestinal obstruction occur late. Obstruction can occur only if the base of the diverticulum is broad enough to cause narrowing of the intestinal lumen. A mass at the hernial site which is tender associated with nausea, vomiting and abdominal pain are the main symptoms. The swelling over the hernia site may be small at first, and may be missed as the cause of symptoms[10-13].

Lastly, if one thought is to be left behind, it should be: "Meckel's is a great mimic that must be considered in all cases of intra abdominal disease in

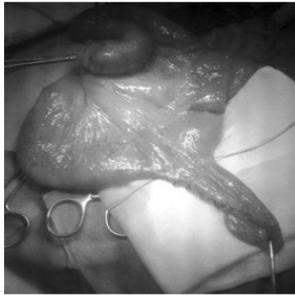
which the cause is not readily apparent"[5].

Conclusion

Littre's hernia is never thought of pre-operatively due to its extremely rare incidence. Diagnosis is usually per operative. Resection and anastomosis through hernia incision is the standard surgery. we have reported a rare case of littre's hernia in an 18 yrs old, who presented with ectopic gastric mucosa and irreducibility of the hernia treated successfully with resection and anastomosis and modified Bassini's repair.

Intraoperative Images

Fig.No.1



12. Mirza MS. Incarcerated Littre's femoral hernia: case report and review of the literature. *J Ayub Med Coll Abbottabad* 2007;19: 60-61
13. Emre A, Akbulut S, Yilmaz M, Kanlioğlu M, Aydın BE. Double Meckel's diverticulum presenting as acute appendicitis: a case report and literature review. *J Emerg Med* 2013; 44: e321-e324

References

1. Trupo FJ, Aburahma A Meckel's diverticulum in a femoral hernia: a Littre's hernia. *South Med J* 1987; 80(5):655-6.
2. Perlman JA, Hoover HC, Safer PK Femoral Hernia with strangulated Meckel's diverticulum (Littre's hernia) *Am J Surg* 1980;139(2):286.
3. Andrew DR, Williamson KM. Meckel's Diverticulum-Rare Complications and Review of the Literature. *J R Army Med Corps* 1994; 140:143-145.
4. Fa-Si-Oen PR, Roumen RMH, Croiset van Uchelen FAAM. Complications and Management of Meckel's Diverticulum-A Review. *Eur J Surg* 1999; 165:674-678.
5. Rossi P, Gourtsoyiannis N, Bezzi M, Raptopoulos V, Massa R, Capanna G, Pedicini V, Coe M. Meckel's diverticulum: imaging diagnosis. *Am J Roentgenol* 1996;166:567-573.
6. Brown CK, Olshaker JS. Meckel's diverticulum. *Am J Emerg Med* 1998;6(2):157-164.
7. Martin JP, Connor PD, Charles K. Meckel's Diverticulum. *Am Fam Physician* 2000; 61:1037-1042,1044.
8. Perlman JA, Hoover HC, Safer PK. Femoral hernia with strangulated Meckel's diverticulum (Littre's hernia). *Am J Surg* 1980; 139: 286-289
9. Skandalakis PN, Zoras O, Skandalakis JE, Mirilas P. Littre hernia: surgical anatomy, embryology, and technique of repair. *Am Surg* 2006; 72: 238-243
10. Jacob TJ, Gaikwad P, Tirkey AJ, Rajinikanth J, Raj JP, Muthusami JC. Perforated obturator Littre hernia. *Can J Surg* 2009; 52: E77-E78
11. Dumper J, Mackenzie S, Mitchell P, Sutherland F, Quan ML, Mew D. Complications of Meckel's diverticula in adults. *Can J Surg* 2006; 49: 353-357