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Journal of Clinical and Biomedical Sciences

Case Report

A Rare Case of Perforated Meckel's Diverticulum

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Abstract

We present a rare case of perforated Meckel's diverticulum which presented initially with subcutaneous abscess. The abscess ruptured spontaneously and formed an enterocutaneous fistula and later presented as perforation peritonitis.

Keywords: Meckel's diverticulum, enterocutaneous fistula, perforation peritonitis

Introduction

Johann Meckel in 1809 first described the anatomy and embryonic origin of Meckel's diverticulum.[1] It is a congenital anamoly of omphalomesenteric duct with known complications of diverticulitis, perforation, strangulation by band, intestinal obstruction and gangrene.[2] The classical presentation of Meckel's diverticulitis mimics an acute appendicitis. Rarely it may penetrate the abdominal wall presenting as parietal abcess and then enterocutaneous fistula similarly which is described for tuberculosis and actinomycosis.

Case report

A 70 year old female presented to the casualty with severe pain in the abdomen and on examination an enterocutaneous fistula was found. There was a history of an abscess formation 10 days back in the suprapubic region which had ruptured spontaneously and formed an enterocutaneous fistula with purulent and feculent discharge. She had tachycardia and a blood pressure of 90/60 mmHg was recorded. There was no pallor, icterus, clubbing, cynosis, lymphadenopathy or pedal edema. Abdomen was rigid with severe tenderness all over. An erect x-ray of the abdomen showed gas under the right side of diaphragm. The routine blood investigations was normal except for an increase in total leucocyte counts and low serum protein levels.

Hence an emergency laparotomy was performed. Intraoperative finding was fecal peritonitis with perforated Meckel's diverticulum at the base and the tip forming the enterocutaneous fistula at parietal wall in suprapubic region. The part of ileum proximal to Meckel's divertulum was dilated. Resection of Meckel's diverticulum was done with temporary proximal ileostomy and distal end brought out as mucous fistula. The fistula tract was excised and a through wash was given with warm normal saline. Abdomen was closed with a pelvic drain. The post operative course was uneventful.

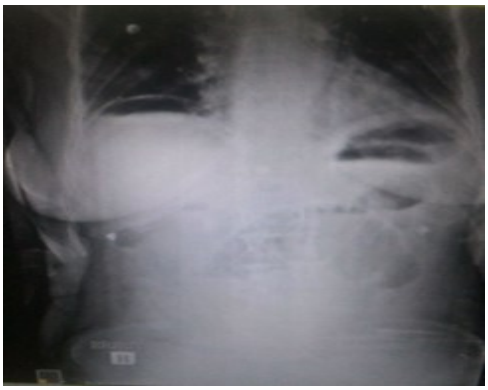

Fig 1. Erect X-ray abdomen: Gas under the right diaphragm

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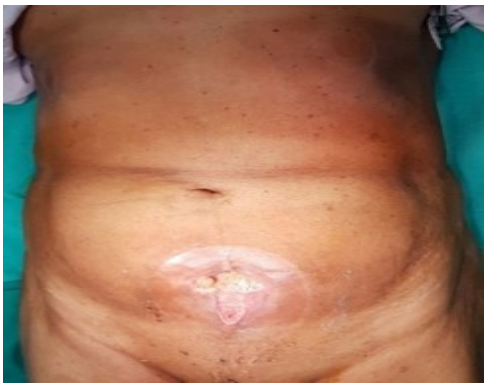

Fig 2. Enterocutaneous fistula

Histopathology confirmed Meckel's diverticulum with perforation. Patient was discharged on the twelfth post operative day with a plan for ileostomy closure after 4-6 weeks.

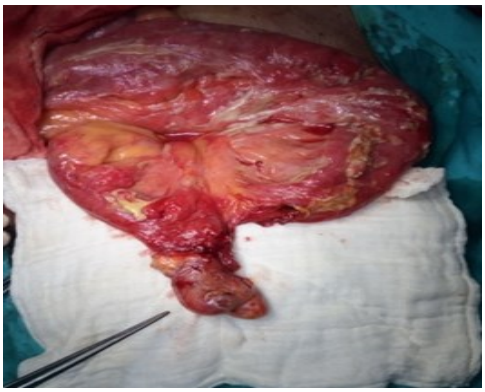

Fig 3. Meckel's diverticulum: Tip forming enterocutaneous fistula

Discussion

Meckel's diverticulum is incidently found during laparotomy, laproscopy or during inguinal hernia repair as littre's hernia.[3] Diverticulitis mimics acute appendicitis. The diagnosis of Meckel's diverticulitis is difficult as standard imaging like, x-ray and sonography does not reveal it easily. If the presentation of the diverticulum is bleeding due to ectopic gastric or pancreatic tissue then the diagnostic method of choice is Tc99M pertechnetate scan.[4,5] If the presentation is of obstruction features then it may be due to free vitellointestinal artery and band or due to intusucception.
The literature describes various rare presentation like inflammation due to fecolith,[6] ascariasis,[7] perforation in littre's hernia,[8] subphrenic abcess,[9] parietal wall abscess and

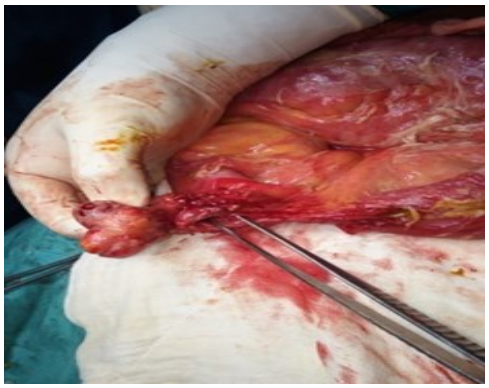

Fig 4. Meckel's diverticulum: Perforation at the base

enterocutaneous fistuala.[10] The case reported is a rare accidental presentation of Meckel's diverticulum. Initially patient presented with spontaneous rupture of parietal wall abscess and enterocutaneous fistula due to diverticulitis and later as perforation peritonitis.

Conclusion

We should be aware of Meckel's diverticulum presenting as parietal wall abscess and later as enterocutaneous fistula with later perforation peritonitis in patients presenting with abdominal wall abscess.

References

1. Kuwajerwada KN, Mohommed A, Villalba RM, Kanthimathinathan SV, Silva JY, Meckel Diverticulum. Accessed from www.misc. medscape. com
2. Emparan C, Ortiz J, Iturburu I, Bilbao JE, Mendez J. Acute Necrotizing Meckel's Diverticulitis due to Biliary Enterolithiasis, Spain Dig Surg 1998; 15: 369-71.
3. Fa-Si-Oen PR, Roumen RM, Croiset van Uchelen FA. Complications and management of Meckel's diverticulum--a review. Eur J Surg. 1999; 165 (7): 674-78.
4. Huang FC, Ko SF, Lee SY. Meckel's diverticulum mimicking infantile colic: sonographic detection. J Clin Ultrasound. 2000; 28 (6): 314-16.
5. Hughes JA, Hatrick A, Rankin S. Computed tomography findings in an inflamed Meckel's diverticulum. Br J Radiol. 1998; 71 (848): 882-83.
6. Horlin C, Sergent H, Delhove O, Gilbeau JP.

Meckel's diverticulitis secondary to enterolith Service de Radiologie, Hôpital de Joliment, HaineSt-Paul, Belgique.J Radiol. 2006; 87 (3): 320-22.

7. Fernández-García FJ etal. Meckel's diverticulitis caused by parasitosis, specifically, Ascaris lumbricoides. Cir Esp. 2006; 79 (5): 319.
8. Vaos G. Perforation of an inguino-scrotal Littre's hernia due to Meckel's diverticulitis: an unusual cause of acute hemiscrotum. Acta Paediatr. 2006; 95 (2): 251-52.
9. Kundra R, Wardhan H. Perforated Meckel's diverticulum presenting as Subphrenic abscess. Indian J Pediatr 2001; 68(4): 353-54
10. Oguzhan Karatepe. Meckel's diverticulum manifested by a subcutaneous abscess. World J Gastroenterol 2009; 15(48): 6123-25