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Appendicitis or Meckel's Diverticulitis: About a Case

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Abstract | **Case Report**

Meckel's diverticulum is the most common congenital malformation of the digestive tract. Its diagnosis occurs either incidentally or during a complication. We report the case of a young patient who consulted the emergency department for appendicular syndrome, and whose surgical intervention revealed Meckel's diverticulitis.

Keywords: Meckel's Diverticulum, Diverticulitis, Appendicitis, Surgery.

INTRODUCTION

Meckel's diverticulum is the most common congenital malformation of the digestive tract. It results from an incomplete continuity of the omphalomesenteric duct that connects the primitive intestine with the umbilical vesicle during embryonic development. Its diagnosis can occur incidentally or during a complication. Among these complications is diverticulitis, which is defined as inflammation of Meckel's diverticulum or heterotopic mucosa found within this diverticulum, presenting a clinical picture similar to that of acute appendicitis [1].

OBSERVATION

This is a case of a 28-year-old patient with no significant medical history who consulted the emergency department for sudden onset pain in the right iliac fossa associated with vomiting and fever measured at 38.5°C. Abdominal examination revealed tenderness and guarding in the right iliac fossa, with no palpable mass. A rectal examination was unremarkable. A biological assessment showed leukocytosis at 15,000 and a CRP of 150. An injected abdominopelvic CT scan showed a slightly dilated retrocecal appendix measuring 8 mm with an associated collection. Based on this data, the diagnosis of acute appendicitis was retained, and laparotomy at McBurney's point was indicated. Exploration revealed a healthy retrocecal appendix with no signs of inflammation. The small intestine was then examined along its entire length, starting from the ileocecal valve. An inflamed Meckel's diverticulum was observed 55 cm from the terminal ileum. The Meckel's diverticulum was sessile with a broad base. A segmental resection with end-to-end anastomosis was performed with drain placement. The postoperative course was uncomplicated, with discharge on day 5. The pathological examination favored diverticulitis with the presence of pancreatic-type heterotopic mucosa.

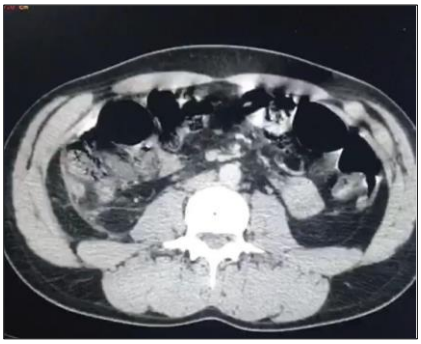

Figure 1: Slightly dilated retrocecal appendix measuring 8 mm

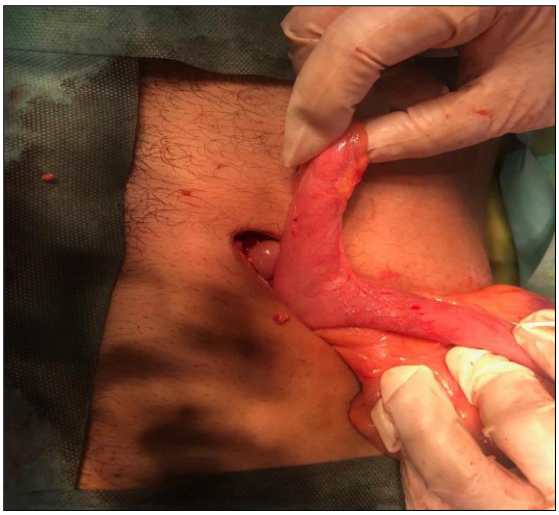

Figure 2: Intraoperative view of Meckel's diverticulum

DISCUSSION

Meckel's diverticulum is an embryonic remnant found on the anti-mesenteric border of the ileum, typically located less than 100 cm from the ileocecal valve. It is considered a true diverticulum as it contains all layers of the intestinal wall. Anatomically, Meckel's diverticulum is located at the termination of the superior mesenteric artery [1, 2]. In most cases, it contains typical ileal mucosa but can also contain various ectopic tissues such as gastric, duodenal, colonic, pancreatic—as seen in our patient—endometrial, and even hepatobiliary tissue [3].

Diagnosis can be incidental or occur during complications. Complications of Meckel's diverticulum are challenging to diagnose clinically and radiologically due to low specificity of symptoms, clinical signs, and radiological features. The clinical presentation of these complications depends on the underlying pathological process; mechanical complications are most common in adults, followed by diverticulitis, which manifests as abdominal pain typically located peri-umbilically or in the right iliac fossa, mimicking acute appendicitis as in our patient's case. Intestinal hemorrhage is the most common clinical presentation in pediatric populations and can be painless, insidious, intermittent or present as sudden rectal bleeding [4, 6].

The treatment for symptomatic Meckel's diverticulum is surgical; resection techniques vary based on discovery mode. Segmental resection with end-to-end anastomosis is considered the most reliable technique as it allows resection of a variable length of intestine on either side of the diverticulum base to ensure suturing on perfectly healthy tissue. Its complications are rare and were applied to our patient. However, systematic resection of incidentally discovered Meckel's diverticulum remains controversial [1].

CONCLUSION

Meckel's diverticulum can become infected and cause diverticulitis. The clinical picture closely resembles that of acute appendicitis; thus, this diagnosis often leads to surgical intervention. During surgery, finding a healthy appendix should systematically prompt a search for Meckel's diverticulum.

REFERENCES

1. Grapin, C., Bonnard, A., & Helardot, P. G. (2005). « Chirurgie du diverticule de Meckel », *EMC – Chir*, 2(6), 613-620, doi: 10.1016/j.emcchi.2005.10.001.
2. Sauvat, F., & Rivillon, Y. (2010). « Diverticule de Meckel et pathologie du canal omphalomésentérique », 1-5, doi: 10.1016/S1155-1968(10)53952-X.
3. Lequet, J., Menahem, B., Alves, A., Fohlen, A., & Mlliri, A. (2017). « Diverticule de Meckel chez l'adulte », *J. Chir. Viscérale*, *154*(4), 261-268, doi: 10.1016/j.jchirv.2017.04.002.
4. Galifet, M., & Michel, P. (2009). « Complications occlusives en relation avec le diverticule de Meckel », *Presse Médicale*, *38*(6), 1009-1013, doi: 10.1016/j.lpm.2008.06.026.
5. Bruère-Ronzi, L., Mazet, Ph., & Schotte, T. 2015). « Invagination intestinale de l'adulte », *Ann. Fr. Médecine Urgence*, *5*(5), 263-264, doi: 10.1007/s13341-015-0562-3.
6. Zarand, A., Bajtai, A., Baranyai, Z., Dede, K., & Jakab, F. (2011). « Inflammation of Ectopic Pancreatic Tissue in a Meckel's Diverticulum Causing Acute Abdominal Symptoms: A Case Report and Review of the Literature », *Int. J. Surg. Pathol*, *19*(3), 359-363, juin 2011, doi: 10.1177/1066896909331995