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## Intestinal volvulus on Meckel's diverticulum: about an observation

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### Abstract

Meckel's diverticulum most often remains asymptomatic and is diagnosed only fortuitously or when complications arise. We report a case of intestinal volvulus on Meckel's diverticulum in a 19-year-old patient. The surgical procedure was an ileal resection with anastomosis. The postoperative follow-up was simple.

**Keywords:** Meckel's diverticulum, intestinal volvulus, resection, anastomosis

### Introduction

Meckel's diverticulum is the partial persistence of the omphalo-mesenteric duct. It is the most frequent congenital anomaly of the gastrointestinal tract with a slight male predominance [1]. It most often remains asymptomatic and is diagnosed only fortuitously or when complications arise [2]. We report the case of a Meckel's diverticulum complicated by an intestinal volvulus.

### Case report

He was a 19-year-old patient, referred by the national emergency medical services for the management of abdominal pain, vomiting and transit stop, the start of which started 24 hours ago. Its history was without particularity and its normal constants. The abdomen was slightly distended with a diffuse tenderness and a slight defense on palpation, no contracture or meteorism. An abdominal x-ray showed few sparse-type hydro-aeric levels [Figure 1]. CT scan showed a small bowel obstruction with junctional syndrome on a stenosing ileitis likely about 8 centimeters from the ileo-cecal junction (Figure 2). The diagnostic hypothesis retained was an upper intestinal obstruction. A laparoscopy had been indicated. The intraoperative discovery of intestinal volvulus on Meckel's diverticulum was the reason for the conversion to laparotomy during which the portion of the ileal loop containing the Meckel's diverticulum had been resected (Figure 3), followed by an ileo-ileal anastomosis. The part had been sent to anatomopathology for examination (Figure 4). The post-operative results were good and the patient returns at home on the fifth day post-operative. Pathology results indicated Meckel's diverticulitis complicated by small intestinal inflammatory volvulus.

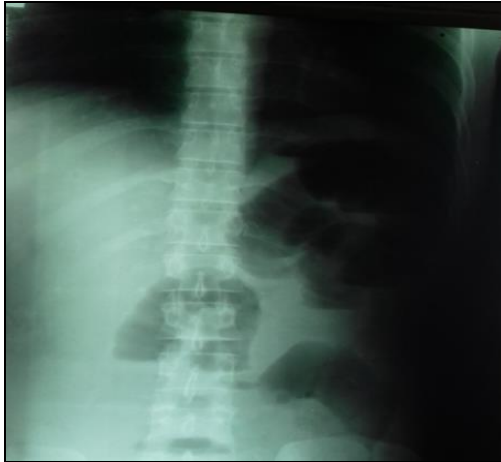
### Discussion

Meckel's diverticulum is the most frequent congenital anomaly of the gastrointestinal tract with a slight male predominance [1]. It is rare and occurs between 2 to 4% of the population [3]. It most often remains asymptomatic and is diagnosed only fortuitously or when complications arise. In our case, it was a man who had an intestinal volvulus. It is necessary to know how to evoke the diagnosis of Meckel's diverticulum within the vast group of acute or subacute intestinal obstructions in particular in the young people without surgical history, because Meckel's diverticulum is difficult to identify despite the progress of imagery [1]. The location of Meckel's diverticulum 20 centimeters from the ileocecal valve joins the description made by Johann MECKEL as well as the occlusive strangulation mechanism [4,5]. The diverticulum consists of a mucous heterotopia, of the gastric type in 23 to 60% of cases; it may be a pancreatic type mucosa [6]. In the case presented, there was an intestinal resection taking away the Meckel's diverticulum with restoration of continuity. This technique is preferred to wedge resection, the risk of which is to leave ectopic tissue in place [7].

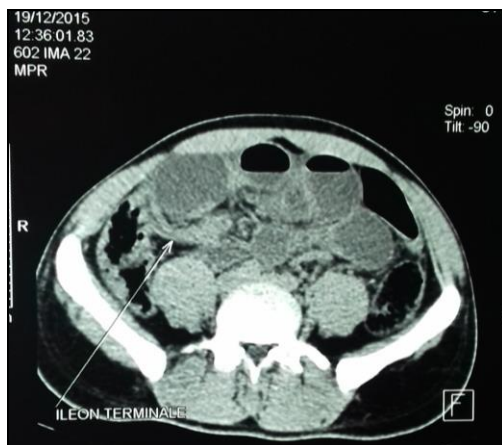
The postoperative follow-up was simple in our patient even if certain post-operative complications have been reported [8].

### Conclusion

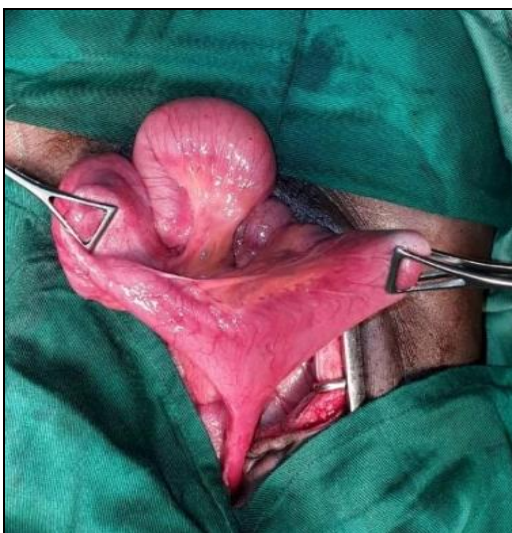
Meckel's diverticulum most often remains asymptomatic and is diagnosed only fortuitously or when complications arise. It is necessary to know how to recognize it in the diagnosis of acute abdominal pain for a better surgical management.



**Fig 1:** Abdominal X-ray showed hydroaeric levels



**Fig 2:** CT scan: intestinal obstruction with junctional Syndrome



**Fig 3:** Intraoperative view of the intestinal volvulus on Meckel's diverticulum



**Fig 4:** Resection piece carrying small bowel and diverticulum

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