

Ileoileal intussusception due to an inverted Meckel's diverticulum in a child

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To the Editor

Meckel's diverticulum (MD) is the most common congenital anomaly of the gastrointestinal tract. In the majority of cases, it is an incidental finding but symptoms can occur due to haemorrhage, bowel obstruction, infection, perforation and umbilical fistula. We report a case of intussusception due to an inverted MD.

A 7-year-old patient presented to the emergency department with vomiting and abdominal pain of 12 hour duration. He also reported rectal bleeding. On physical examination a palpable mass in the right lower quadrant was noted. Hemoglobin level was 13,8 g/dl and white blood cells count was 18.000/ μ l. Abdominal radiography revealed air fluid levels consistent with bowel obstruction. For further evaluation an abdominal ultrasound examination was performed and revealed the characteristic "target sign" in the right lower quadrant, indicating an intussusception, and free intraperitoneal liquid. Due to clinical deterioration, the patient was taken urgently to the operation room. At laparotomy a section of small bowel was found to be intussuscepted secondary to an invaginating MD (Fig. 1). The MD was resected. The patient was discharged on postoperative day five. Histological examination confirmed the presence of pancreatic ectopic tissue.

MD results from unsuccessful resorption of proximal omphalomesenteric (vitelline) duct during embryonic development and is a blind intestinal pouch, located on the antimesenteric side of the ileum, 40-90 cm from the ileocaecal valve. The incidence of MD in the general population is approximately 1% and in the majority of cases is asymptomatic. Inflammation, perforation, gastrointestinal bleeding and intussusception are complications of the MD (1).

Intussusception due to an inverted MD is a very rare condition and potential life-threatening. St-Vil *et al.* reported that in 117 symptomatic patients with MD, 19 had intussusception (2). In such a case a delay in the management can cause bowel ischaemia and infarction. Plain films usually are nonspecific. Recently ultrasonography has been used with good results whereas Daneman *et al.* reported that CT can also provide additional information in the preoperative diagnosis of a complicated MD (3). Furthermore, radionuclide scans (99m Tc-pertechnetate) may diagnose MD when uptake occurs in ectopic gastric mucosa or by identifying the site of gastrointestinal bleeding. In the present case the



Fig. 1. — Findings at laparotomy. Inversion and reset of Meckel's diverticulum.

ultrasonography revealed the target sign indicating an intussusception which attributed to an inverted MD at laparotomy.

In conclusion, the diagnosis of this entity should be considered in patients with unexplained abdominal pain and vomiting, or intestinal bleeding. Radiological diagnosis can be a challenge but due to the high risk of complications such as intestinal necrosis, early surgical intervention through a laparotomy is necessary.

References

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Submission date : 13.05.2007

Acceptance date : 28.05.2007