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Case Report

Multiple Hemangiomas of Small Bowel Leading to Recurrent Intussusceptions in Perioperative Period

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1. Abstract

We report a case of 35-year-old woman with recurrent intussusceptions caused by multiple hemangiomas of the small bowel during hospitalization. When she was admitted to emergency room, multiple hemangiomas of the small bowel leading to intussusceptions was diagnosed through laparotomy. Radical resection could not be done because lesions extensively dispersed on the small bowel wall. Then the bowel segment of intussusceptions and five hemangiomas (about 20mm in diameter) nearby were resected following by an ileo-colonic reanastomosis. But small bowel obstruction was diagnosed on the fifth day post operation and during the second laparotomy we found intussusceptions recurred due to small bowel hemangiomas. Small bowel hemangioma is rare though it may present as recurrent intussusceptions and it should be kept in mind while handling cases of acute abdomen.

2. Keywords: Hemangioma; Small bowel; Intussusception

3. Introduction

Adult intussusception is an unusual entity, and its etiology differs from that in pediatric patients. Many factors can cause intussusception. Though multiple hemangiomas in the small bowel are relatively rare in all age groups, they may act as the lead point of an intussusception. This report presents a case of multiple hemangiomas of small bowel which caused recurrent intussusceptions after the first laparotomy.

4. Case Report

A 35-year-old woman was admitted to the emergency room in August 2009 with continuing abdominal pain for about 30 hours accompanied by nausea and vomiting. She did not have fever, hematemesis, melena, or hematochezia. She had always been healthy and took no medications specifically. Physical examination revealed mild pale conjunctivae and a tenderness mass in the right hypo gastric region, which could moved a little. No sign of peritonitis was found, but the bowel sound was high-pitched. Her body temperature and blood pressure were in normal range. Perrectum examination was insignificant. On laboratory testing, she was found to have mild anemia, with a hemoglobin level of 103g/L (reference range 131-172g/L). Ultrasonic examinations of the abdomen were performed and a large irregular mass was found with a little of as cites in peritoneal cavity. A computed tomography (CT) scan of the abdomen showed the presence of a laminated mass in the lower abdomen, suggestive of an intussusception with evidence of associated small bowel obstruction. Conservative measures did not work. Laparotomy was performed and a little of clear liquid was found in the peritoneal cavity. On exploration, we also found multiple hemangiomas (5mm-20mm in diameter) were extensively dispersed on the small bowel wall (**Figure 1**) and ileocolonic intussusception was on the right lower quadrant. Radical resection could not be done because of widespread lesions. Then the bowel segment of intussusception resection was performed with an ileo-colonic reanastomosis and five hemangiomas (about 20mm in size, firm, and purplish-blue) on the small bowel wall were resected. Gross pathological examination

revealed intestinal necrosis on the small bowel segment of specimen (**Figure 2**). Microscopic examination revealed cavernous hemangioma. However, the postoperative period was eventful. The patient complained of continuing abdominal pain with vomiting, abdominal distention and obstipation on the fifth day post operation. Physical examination revealed abdominal distention, tenderness on inferior belly and sign of peritonitis. Small bowel obstruction was diagnosed and then laparotomy was performed again. During the Laparotomy, ileo-ileal intussusception caused by adjacent hemangiomas were found 40 centimeters away from last anastomotic stoma (**Figure 3**). Manual reduction was done well and hemangiomas nearby were resected. She was discharged home 11 days after the second operation. Patient is on regular follow-up without any symptom recently.

Figure 1: Multiple hemangiomas of small bowel.

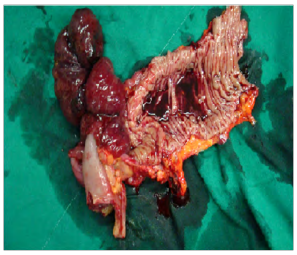

Figure 2: Bowel segment of intussusceptions.

Figure 3: Histopathological view of small bowel hemangioma

5. Discussion

Small bowel hemangioma accounts for only 0.05% of all intestinal neoplasms [1, 2].They are congenital benign vascular lesions originating from embryonic sequestrations of mesodermal tissue, but etiology of hemangiomas is still unknown. The jejunum is the most common location, but in our case hemangiomas on the ileum are more than those on jejunum. Small bowel hemangioma can be classified as the capillary type, the cavernous type, or the mixed type, according to the diameter of the injured vessel [3]. Most patients present with evidence of acute or chronic gastroenteric bleeding, while obstruction, intussusception, and perforation may seldom occur [4]. Some patients are asymptomatic. Therefore small bowel hemangioma was difficult to be diagnosed by using traditional techniques including CT, abdominal plain film, gastroenterography, angiography and so on. With the use of capsule endoscopy and double-balloon enteroscopy, diagnosis of small bowel hemangioma is significantly improved [4-7], but they can't be applied to patients presenting with intussusception and bowel obstruction in emergency. When etiological factor cannot be determined, the diagnosis of small bowel hemangioma should be considered. The case we report was definitely diagnosed by laparotomy and multiple hemangiomas could not be radically resected due to extensive distribution of the lesions, which lead to recurrence of intussusceptions after the first operation. Hence, if the operative indication is existing, laparotomy or laparoscopic approach is suggested to avoid severity complications such as intestinal necrosis and perforation. For the treatment to multiple hemangiomas of the small bowel, lesions should be radically resected as possible with the function of bowel reserved to avoid recurrence of complication. Small bowel hemangioma is rare though it may present as recurrent intussusceptions, and it should be kept in mind while handling cases of acute abdomen.

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