A rare case of mesenteric hemangioma presenting with intestinal obstruction in a young male child

Hemangiomas of the gastrointestinal system are rare to find, and account for only 0.05% of the tumors in the intestine. Mesenteric hemangiomas are even rarer, with only few case reports in the literature. An 8-year-old male child presented to the Paediatric Surgery OPD complaining of pain in the abdomen for a few months and failure to pass stools since 5 days. On ultrasonography, a big-sized cystic lesion measuring 6.4 × 3.5 cm was appreciated. On exploratory laparotomy, a large grey brown to tan multilobulated mass measuring approximately 15 × 8 cm was found encasing the small intestine from the mesenteric aspect. Excision of the mass along with an end-to-end anastamosis was performed. On histopathological examination, diagnosis of mesenteric cavernous hemangioma was confirmed. Although mesenteric hemangiomas are a rare entity, they should be considered as a part of differential diagnosis in patients of any age group presenting with intestinal obstruction.

Key words: Hemangioma, intestinal obstruction, mesenteric

INTRODUCTION

Vascular neoplasms are one of the most common soft tissue neoplasms accounting for nearly 7% of various benign tumors. They have a wide distribution in many organs, and most frequently involve the skin, mucosa, liver and central nervous system. Hemangiomas of the gastrointestinal system are rare to find, and account for only 0.05% of the tumors in the intestine. Mesenteric hemangiomas are even rarer, with approximately only 20 case reports in the literature, and five of them presenting as big neoplasms to the best of our knowledge. The four cases, without exception, were all adults. Only one of the case reports mentions giant mesenteric hemangioma in a 5-year-old girl child. We report one case of large mesenteric hemangioma of cavernous type in an 8-year-old boy who presented with pain in the abdomen and failure to pass stools since 1 week.

CASE REPORT

An 8-year-old male child presented to the Paediatric Surgery OPD with complaints of pain in the abdomen since few months and failure to pass stools since 5 days. An ultrasound of the abdomen was advised keeping in mind the various possible causes of intestinal obstruction. On ultrasonography, a big-sized cystic lesion with septation and moving internal echoes was appreciated, measuring 6.4 × 3.5 cm. Exploratory laparotomy was planned further. On opening the abdomen, a large grey brown to tan multilobulated mass measuring approximately 15 × 8 cm was found encasing the small intestine from the mesenteric aspect [Figure 1]. On giving an incision in the mass, frank blood came out. The mass was subsequently resected along with an attached part of the intestine and an end-to-end anastamosis was performed.

Histopathological examination of the sections from the removed mass and attached gut revealed a tumor composed of proliferating dilated thin-walled vessels lined by flattened endothelial cells, located in the mesentery without involving the intestinal wall [Figure 2]. On immunohistochemistry, CD31 and 34 markers were found to be positive in the blood vessel walls [Figure 3]. Hence, the diagnosis of mesenteric cavernous hemangioma was confirmed. After the surgery, the patient was doing well and was discharged subsequently on the 10th post-operative day.

DISCUSSION

Hemangioma is one of the most common benign tumors with a wide occurrence in many organs,
Photomicrograph showing mesenteric hemangioma of vessels, confirmed by immunohistochemistry. The origin of mesenteric hemangioma is still uncertain. Most reported cases show involvement of both the bowel wall and the mesentery. Gastrointestinal hemangiomas arise from the submucosal vascular plexuses and may invade the muscularis layer. There is rarely penetration beyond the serosa. But, in few cases reported, including the present case, the tumors were confined to the mesentery rather than the bowel wall, indicating the origin from the mesentery.

In histopathology, hemangiomas have been classified into various categories based on vessel size and wall thickness. All types have not been reported to occur in the gastrointestinal system. The classification of the intestinal hemangioma adopted by Abrahamson and Shandling was supposed to be applied in mesenteric hemangioma as well.

In our case, the tumor was located in the mesentery and the bowel wall structure was preserved. Thus, in this case, the patient presented with symptoms of intestinal obstruction.

The pre-operative diagnosis of mesenteric hemangioma is tough to make, sometimes even nearly impossible. Although the imaging methods including B-mode ultrasonography, computed tomography and magnetic resonance imaging provide some useful information regarding demonstration of an abdominal mass, an accurate diagnosis cannot be made by these modalities. The final diagnosis is, however, rendered on histopathological examination. The optimal treatment of intestinal or mesenteric hemangiomas is surgical resection. Low-dose radiation therapy, cryotherapy, brachytherapy, sclerotherapy or arterial embolization has been used in non-resectable and diffuse hemangiomatosis with limited success.

Although mesenteric hemangiomas are a rare entity, they should be considered as a part of differential diagnosis in patients of any age group presenting with intestinal obstruction. Surgical resection is the preferred modality of treatment in these cases.

REFERENCES


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