

Case Report

A rare case of an asymptomatic mesenteric hemangioma: an incidental finding

Stephanie A. Luster*, Mai D. Gandhi, Michael R. Reich

Department of Surgery, Flushing Hospital Medical Center, Flushing, New York

Received: 13 August 2019

Revised: 09 September 2019

Accepted: 11 September 2019

*Correspondence:

Dr. Stephanie A. Luster,

E-mail: Steph.luster@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

A 60-year-old female patient presented with incidental finding of duodenal mesenteric hemangioma during the work up for a ventral hernia. Our patient presented at the age of 60-years-old with complaints of a ventral hernia. After initial imaging on CT showed an incidental finding of a mesenteric mass, an MRI confirmed the diagnosis, in this otherwise asymptomatic female. The patient underwent an exploratory laparotomy with complete excision of the mesenteric mass. Final pathology shows findings of a mesenteric hemangioma. The finding of a mesenteric mass requires further investigation. While benign and rare, mesenteric hemangiomas should be considered as a possible differential diagnosis in patients with radiographic evidence of a mesenteric mass, especially if the patient has symptoms of gastrointestinal hemorrhage. The literature on mesenteric hemangiomas is reviewed. Hemangioma of the GI tract mesentery is a rare pathology but should be included in the differential diagnosis in patients presenting with an intraabdominal mass.

Keywords: Mesenteric hemangioma, Intestinal hemangioma, Mesenteric mass

INTRODUCTION

Hemangiomas are a rare benign vascular tumor of the abdomen. It is generally believed that a hemangioma is a congenital hamartomatous lesion originating from embryonic sequestrations of mesodermal tissue.¹ In the gastrointestinal tract, hemangiomas only comprise 5-10% of benign tumors with equal distribution between the jejunum and ileum, followed by the large intestine, and stomach.²⁻⁵ Duodenal hemangiomas are even more rare. More specifically, since 1839, approximately 200 cases of gastrointestinal hemangiomas have been reported with only 15 of those cases involving the mesentery.⁴

CASE REPORT

A sixty year old female presents to general surgery office for work up for ventral hernia. Past medical history is significant for hypertension which was well controlled

with amlodipine and atenolol. Past surgical history included a cesarean section, right leg varicose phlebectomy and wrist surgery. Patient denied abdominal pain or discomfort as well as associated symptoms of nausea, emesis, or diarrhea. There was no change in bowel habits. Focused abdominal physical exam was unremarkable. Preoperative hemoglobin was within normal limit.

On a preoperative computed tomography scan, she was found to have a discrete well-defined cystic-appearing mass directly abutting the medial margin of the pancreatic uncinata process, measuring 3.5 × 2.5 × 3 cm. The anterior margin of the mass partially abuts the superior mesenteric artery and vein.

Follow-up MRI was ordered to confirm initial suspicion and better delineate association with mesentery. MRI showed a well-defined round mass at the level of the

fourth portion of duodenum, measuring $3.9 \times 2.5 \times 3$ cm. This mass was hypointense on pre-contrast T1-weighted images and hyperintense on T2-weighted images, which is nonspecific. Arterial phase postcontrast images show initial peripheral enhancement, as well as enhancing internal septations. Venous phase and delayed images show diffuse enhancement of this mass, indicating a solid

lesion. The mass directly abuts the fourth portion of the duodenum and is located just anterior to the abdominal aorta, left of midline. The superior mesenteric artery and vein are seen along the anterior margin of the mass. The pancreatic uncinate process abuts the medial margin of this mass.

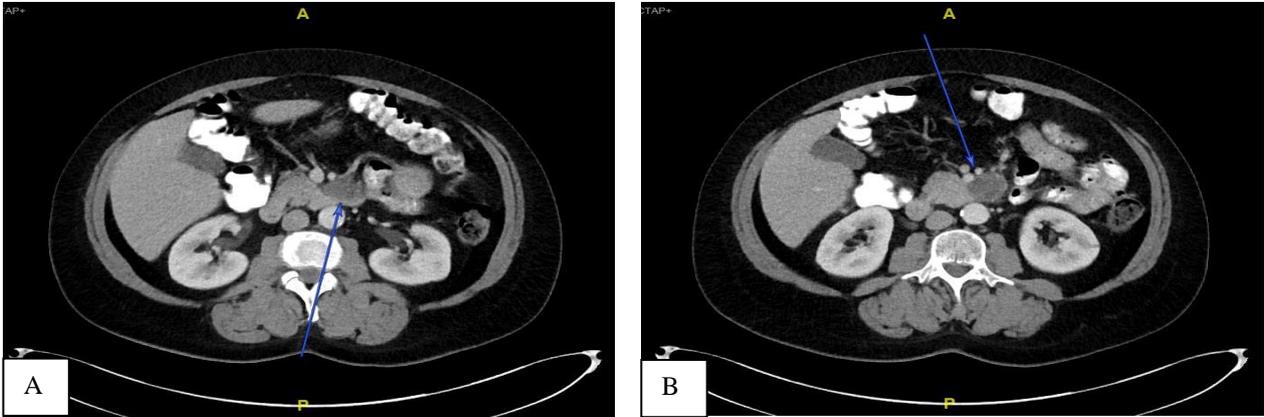


Figure 1: (A) and (B) A discrete well-defined cystic-appearing mass directly abutting the medial margin of the pancreatic uncinate process, measuring $3.5 \times 2.5 \times 3$ cm (blue arrows).

Patient was scheduled for an exploratory laparotomy and excision of intraabdominal mass with repair of the ventral hernia. Intraoperatively, the mass was found in the retroperitoneum and exposed behind the mesentery at the fourth portion of the duodenum after the ligament of Treitz was incised. Mass was dissected free from duodenum; no involvement of the bowel was noted. The mass was surrounded by mesentery which was dissected free and sent for pathology. There was minimal bleeding. Tumor was tested positive for marker SMA and CD34. Pathology resulted in a hemangioma with a benign lymph node. The patient tolerated the procedure well and was discharged from the hospital on postoperative day 3.

including cavernous, which is the most common, and capillary or mixed type.^{1,4,6} On imaging, a review of literature reveals that mesenteric hemangiomas have no characteristic imaging features, and it is not until final pathology where the type of hemangioma can be identified.⁷ Further, the differential diagnosis of a mesenteric mass is vast, and once identified, a differential can include cystic lymphangioma and mesothelial lesions, desmoid tumor, solitary fibrous tumor, peritoneal carcinomatosis, leiomyomatosis, teratoma or lipoma.⁷ Due to the location of mesenteric masses, biopsies are difficult to obtain, but all require further exploration and likely surgery.

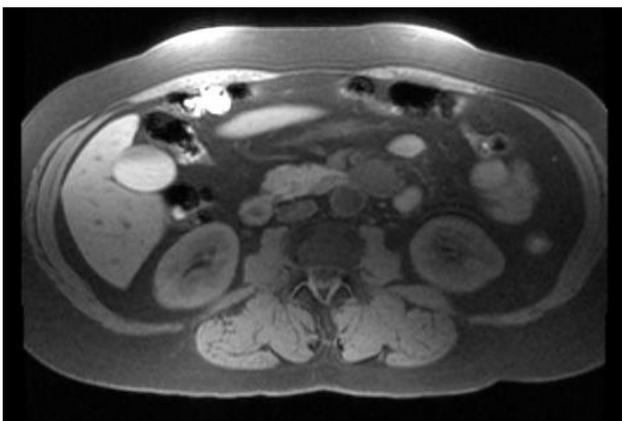


Figure 2: MRI of a well-defined mass at the level of the fourth portion of duodenum.

DISCUSSION

Hemangiomas can fall into 3 subtypes based on the classification system used by Abrahamson and Shandling

The majority of hemangiomas of which an operation is performed are symptomatic.⁴ Bleeding is the most common finding, often times with hematemesis or melena, and less commonly with anemia, which can be chronic or acute.⁸ There is one case report demonstrates hemangioma causing urologic symptoms.⁹ Cavernous hemangiomas often have a sudden onset of large quantities of bleeding, whereas capillary hemangiomas tend to bleed slowly.⁶ Obstruction can occur secondary to intussusception which leads to nonspecific symptoms such as nausea, vomiting and crampy abdominal pain.

Surgical excision is the most common treatment modality. Depending on the size and location of the tumor, wide local excision versus bowel resection with primary anastomosis can be performed. A new surgical technique called fractionation explores a novel approach to excising benign retroperitoneal tumors surrounding vessels.¹⁰ This approach dissects the tumor by quadrant, after the quadrants are established intersecting the tumor. This method not only exposes and protects critical blood

vessels, lowers the risk of severe bleeding caused by major vascular injury, and reduces post-operative complications, but it also allows for a complete resection of the tumor.

CONCLUSION

An incidental finding of a retroperitoneal mass requires further workup. We present a case of mesenteric hemangioma found incidentally during workup for a ventral hernia. Mesenteric hemangioma, although rare, should be considered in the differential diagnosis for mesenteric masses.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Kazimi M, Ulas M, Ibis C, Unver M, Ozsan N, Yilmaz F, et al. A rare cause of recurrent gastrointestinal bleeding: mesenteric hemangioma. *World J Emerg Surg.* 2009;4:5.
2. Amati AL, Hecker A, Schwandner T, Ghanem H, Holler J, Reichert M, et al. A hemangioma of the sigmoid colon mesentery presenting as a retroperitoneal tumor: a case report and review. *World J Surg Oncol.* 2014;12(79):1-5.
3. Ojili V, Tirumani SH, Gunabushanam G, Nagar A, Surabhi VR, Chintapalli KN, et al. Abdominal hemangiomas: a pictorial review of unusual, atypical, and rare types. *Can Assoc Radiol J.* 2013;64(1):18-27.
4. Ruiz AR, Ginsberg AL. Giant mesenteric hemangioma with small intestinal involvement: An unusual cause of recurrent gastrointestinal bleeding and review of gastrointestinal hemangiomas. *Dig Dis Sci.* 1999;44(12):2545-51.
5. Varma JD, Hill MC, Harvey LA. Hemangioma of the small intestine manifesting as gastrointestinal bleeding. *Radio Graphics.* 1998;18(4):1029-33.
6. Hanatate F, Mizuno Y, Murakami T. Venous hemangioma of the mesoappendix: report of a case and a brief review of the Japanese literature. *Surg Today.* 1995;25(11):962-4.
7. Si-Mohamed S, Aufort S, Khellaf L, Ramos J, Gasne P, Durand L. Mesenteric cavernous hemangioma: Imaging-pathologic correlation. *Diagn Interv Imaging.* 2015;96(5):495-8.
8. Dayan D, Raz M, Kuriansky J. Giant cavernous hemangioma of small intestine mesentery: a rare cause of recurrent acute symptomatic anemia. *Isr Med Assoc J.* 2019;21(6):424-5.
9. Ishigaki H, Nakae A, Nakai M, Ogasawara K. Mesenteric cavernous hemangioma with urological symptoms. *Intern Med.* 2015;54(4):437-8.
10. Wan Z, Yin T, Chen H, Li D. Surgical treatment of a retroperitoneal benign tumor surrounding important blood vessels by fractionated resection: a case report and review of the literature. *Oncol Lett.* 2016;11(5):3259-64.

Cite this article as: Luster SA, Gandhi MD, Reich MR. A rare case of an asymptomatic mesenteric hemangioma: an incidental finding. *Int Surg J* 2019;6:3810-2.