An unusual cause of haemoperitoneum in a child.

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Abstract

We present a case of haemoperitoneum in a child, who presented with signs of acute abdomen with subacute intestinal obstruction. Abdominal paracentesis aspirated fresh blood. Ultrasound and CT scan abdomen showed loculated haemoperitoneum. A definitive diagnosis could not be made and an exploratory laparotomy was undertaken which revealed a large cystic lymphangioma of greater omentum with acute massive spontaneous haemorrhage. It was excised in toto along with the involved omentum leading to excellent recovery. Abdominal cystic lymphangioma first presenting as a spontaneous, life threatening haemorrhage has to our knowledge, not been reported before. It may have to be included in the differential diagnosis of acute haemoperitoneum.

Introduction

Cystic lymphangioma is a rare benign congenital condition arising from abnormal cystic dilatation of lymph channels. The commonest site is the neck but rare cases have been reported in unusual sites including the abdomen.[1] Abdominal lymphangioma is basically a malformation of the mesenteric and/or retroperitoneal lymphatics. Clinical presentation is variable and may be misleading.[2] We present a unique case where the child presented with massive intracystic haemorrhage, mimicking a tense haemoperitoneum, which required urgent transfusions and laparotomy.

Case Report

A 9 year old boy presented at his local hospital with sudden tense abdomen, with vomiting, colicky abdominal pain and constipation. An ultrasound examination showed fluid in the abdomen and intra-peritoneal haemorrhage was suspected. He was managed conservatively with transfusions, intravenous fluids and antibiotics. As the child

continued to have pain and abdominal distention, he was referred to us after 4 days. Abdominal paracentesis was done to confirm haemoperitoneum, based on clinical suspicion. Abdominal distention was progressive but the pain was vague and dull in nature. There was no history of fever, recurrent abdominal pain, weight loss, any febrile illness or abdominal trauma in the recent past. On arrival he was conscious but pale looking with pulse rate of 110/min, blood pressure of 103/70 mmHg and respiratory rate of 22/min. He was afebrile. The abdomen was grossly distended, but soft and non tender. Bowel sounds were not audible. Rectum was empty on digital rectal examination.

A working diagnosis of spontaneous splenic rupture, a ruptured hepatic haemangioma or haemorrhagic pancreatitis was made.

Serial estimation of abdominal girth and haematocrit were carried out. The blood counts showed haemoglobin of 6.4 gm/dl. Platelet count, reticulocyte count, coagulation profile, serum and ascitic fluid amylase and all other biochemical tests were within normal limits. Plain X ray abdomen was opaque with some distended intestinal loops without air fluid levels. Ultrasound and CT scan abdomen revealed fluid in the peritoneal cavity and distended fluid filled gut loops with normal liver and pancreas. There was a suspicion of a small splenic laceration.

As the child was haemodynamically stable, it was decided to treat him conservatively with intravenous fluids, blood and nasogastric aspiration, under active observation in the intensive care unit. The child remained haemodynamically stable, till the 5th day of admission, when he started having swinging, high grade pyrexia. With the possibility of an infected peritoneal haematoma exploratory, laparotomy was carried out. No free blood was obtained on opening the peritoneum, but huge, multiloculated, infected cystic lymphangioma of the greater omentum was found, which occupied the whole of peritoneal cavity (Figure 1). It was extending from greater curvature of stomach to pelvis and from flank to flank. It was excised in toto along with the omentum. The intestines were collapsed but were normal. Liver, spleen, pancreas and kidneys were all normal.

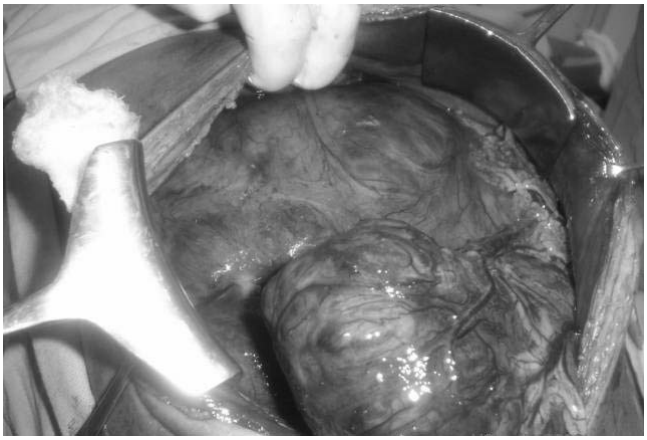

Figure 1. Abdominal lymphangioma with hemorrhage, filling the whole abdomen.

Patient made an uneventful recovery and was discharged on 6th post operative day. On follow up he was asymptomatic. Histopathology report confirmed the diagnosis of omental lymphangioma.

Discussion

Omental lymphangioma, though a rare lymphatic malformation, is encountered more frequently, possibly due to the availability of better diagnostic modalities. Omentum is the second most common site of abdominal cystic lymphangioma, after mesentery of terminal ileum. The embryology is puzzling with the most popular theory being pinching off or sequestration from main lymphatic sacs resulting in non communicating cysts, usually multilocular. Only two-thirds of the cases present at birth.[3]

It is more common among boys and most often occurs in children under 5 years of age.[3] They have variable presentation, the most common symptom being an abdominal tumour or "acute abdomen" in children.[4]

Abdominal ultrasonography is the procedure of choice for establishing the diagnosis. Acute cases with intracystic haemorrhage are more difficult to diagnose. Computed tomography and celioscopy may be useful. Treatment is total excision without sacrificing the vital structures.[2]

Intracystic hemorrhage following abdominal trauma, leading to acute abdomen is known but exceedingly rare, and a misleading complication. Only three cases have been reported in literature.[5-7] Two of these presented after trauma, causing haemorrhage into the abdominal lymphangioma, and the third one was a newborn, with antenatal haemorrhage into the cyst. In our case there was no history of preceding trauma and haemorrhage occurred spontaneously. This is a unique presentation of cystic hygroma. In such cases CT scan and especially MRI have better diagnostic yield than ultrasonography.[6] As these lesions do not undergo spontaneous regression, only treatment option is surgery which involves total excision of the lesion, without harming the vital structures.

Conclusion

Abdominal lymphangioma is a rare congenital disorder, which may present late in life. Some are diagnosed incidentally by ultrasounds, others present as an emergency. Haemorrhage in such a cystic lesion can occur after trivial trauma. Our case had spontaneous haemorrhage in the cyst

presenting as haemoperitoneum. Careful evaluation avoids emergency surgery.

References

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