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Spontaneous Haemoperitoneum A Pandora box

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Abstract

Spontaneous haemoperitoneum is a rare case,which is a surgical emergency. we present a case of 45 year old gentleman diagnosed to have spontaneous haemoperitoneum with multiple caecal divericulitis and regenerative nodules in liver as a sequelae of chronic alcoholic parenchymal liver disease. This case is managed with laparoscopy avoiding laparotomy in an emergency situation.

Keywords: Atraumatic haemoperitoneum, caecal diverticulitis, hepatic regenerative nodules

Introduction

Haemoperitoneum is a catastrophic event that may be spontaneous or atraumatic and traumatic or iatrogenic, therefore it has to be dealt as early as possible. Probable causes for spontaneous haemoperitoneum are rupture of highly vascular tumour, rupture of spleen, rupture of ovarian haemorrhagic cyst or ectopic pregnancy, anticoagulation drugs.[(1)(2)]

We present a case of nontraumatic haemoperitoneum with features of multiple liver nodules and caecal diverticulitis with no identifiable bleeder.

Case report

A 45 year old male patient came with complaints of on and off right lower abdominal pain for past 12 days, and has obstipation for past 24 hours and not passed urine for past 24 hours ,patient is not taking anything by mouth in view of aggravation of pain after 1 to 2 hours of taking food, patient was on oral analgesics for past 12 days which relieved him from his abdominal pain, on examination the abdomen is grossly distended with guarding noted on palpation of the right iliac fossa and right lumbar region, patients pulse rate is 110/min and blood pressure of 100/70 and respiratory rate of 18/min,blood investigation has a total counts of 11,900 with polymorphs of 83 and haemoglobin of 10.3 g/dl and elevated total bilirubin of 3.27 mg/dl and direct bilirubin of 1.72 mg/dl, renal function test appears to be normal, patient has an urine output of 600ml on catheterisation,

with above history and examination we clinically diagnosed the patient to have perforated appendix but in view of age above 40 and elevated bilirubin and 12 day history we opted for a CECT whole abdomen, which showed the patient had approximately 500 ml of blood collected in right iliac fossa and pelvis with caecal diverticulitis and chronic parenchymal liver disease, mild splenomegaly, and right mild pleural effusion, we proceeded with emergency diagnostic laparoscopy and found diffuse haemoperitoneum and cirrhotic liver with regenerative nodules and omental adhesions to the caecum and ascending colon and a normal appendix. We drained 1250ml of blood from the morrisons ,subdiaphragmatic space, right iliac fossa, right paracolic gutter, between small bowel loops and pelvis, after which a thorough bowel walk is done, we are not able to make the source of bleeder, hence a 14F drain tube is placed in pelvis and pneumoreversed.

On postoperative day 1 we did a CT abdominal angiogram to isolate the bleeder but no bleeder was made out and drain tube has a serosanguinous fluid of 30 ml which decreased to 10 on day 2 and futher decrease noted on consecutive days, hence drain tube removed on day 4. The repeat haemoglobin values are 10.1 g/dl on day 1 and no drop noted and the bilirubin remains elevated to the level of 3mg/dl. We did an alpha fetoprotein to rule out hepatocellular carcinoma which is 12ng/ml within the normal limits.

Discussion

Spontaneous hemoperitoneum is rare, most common etiologies are gynecologic, hepatic and splenic. Gastrointestinal stromal tumors (GISTs) as a source of spontaneous haemoperitoneum is published by Benjamin B. Freeman et al[3]. Various other rare causes of spontaneous Hemoperitoneum are rupture of cystic artery pseudoaneurysm [4], ruptured splenic artery aneurysm[5][6], Segmental mediolytic arteriopathy[7] , solitary fibrous tumor of the greater omentum[8], Ruptured peripheral cholangiocarcinoma with hemoperitoneum[9], Spontaneous rupture of a large exogastric hemangioma[10]

In our case the cause may be a rupture of serosal vessel due to caecal diverticulitis which is a rare presentation since intra luminal bleeding is the most common way of presentation of diverticulitis, there are incidents of intraperitoneal haemorrhage with sigmoid diverticulitis published by bong eon et al[11], incidents of intraperitoneal haemorrhage with meckel diverticulitis published by adria rosat[12], incidents of intraperitoneal haemorrhage with aneurysmal rupture of a mesodiverticular band to a meckel's diverticulum by Christian sommerhalder et al[13]. The inflammatory diverticulum may have caused chronic inflammatory pseudoaneurysm of the minute serosal vessel, which on rupture results in haemoperitoneum.

In our case the cause can also be due to a bleeder from the nodular lesions over the liver surface, there are various proven lesions like hepatic adenoma, focal nodular hyperplasia, hepato cellular carcinoma, hepatic hemangioma , which are studied and published by B.C.lucey et al[2].

Treatment of spontaneous haemoperitoneum is an emergency if delayed can lead to mortality, the management of this depends upon the duration of clinical symptoms and the general condition of the patient, based on which a diagnostic laparoscopy or an emergency laparotomy can be performed with identification of the bleeder and cauterise or ligate the vessel or in case of a serosal bleed there may be a need for segmental resection of the involved bowel segment, in our case since we couldn't identify the bleeder we evacuated the intraperitoneal haemorrhage and drain is kept insitu, on post op day 4 drain was removed after confirming for no

bleeder with a CT abdominal angiogram and no drop in haemoglobin level.

Conclusion

All cases of sponataneous haemoperitoneum is an emergency, in our case since no gross lesion or bleeder is identified in CECT whole abdomen and the vitals of the patient remains stable we proceeded with diagnostic laparoscopy instead of laparotomy but still we couldn't identify the source of bleed, and we monitored the patient in intensive care post procedure and even after doing CT abdominal angiogram we couldn't make any bleeder and this case remains a box of mystery, with sponatenous closure of the bleeding vessel or bleeder.

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