

HAEMOBILIA - A RARE CAUSE OF HAEMATEMESIS

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INTRODUCTION

Haemobilia a term introduced by Sandblom in 1948 [1], refers to a relatively common but under-diagnosed and occasionally severe clinical problem. Sandblom recognized the classical triad of pain, jaundice and haematemesis. The more common causes of haemobilia reflect advances in hepatobiliary diagnostic and therapeutic techniques [2-4]. The communication between the vascular and the biliary system may be caused by laceration, pressure necrosis, tumour or infection. Because of its high pressure, the arterial system is involved more often than the venous system. The classical triad is not present in every patient. Jaundice, biliary colic or haematemesis each have two-third incidence [3]. Acute bleeding first causes pain, followed by haematemesis or melena. Liver or biliary scans, ultrasonography (USG), computerised tomography (CT) scan or magnetic resonance imaging (MRI) may provide helpful information, such as evidence of anatomic defects or abnormalities in the liver or biliary ducts [5-7]. Endoscopy may be helpful in half of the cases [8]. In the setting of trauma, the diagnosis may be missed until the re-exploration due to unexplained haematemesis [9]. Initial management remains the same in all cases. Patient should be resuscitated to treat hypovolemia and shock. Further management and selection of operative versus non-operative treatment is based on severity of bleeding, clarity of diagnosis, the underlying cause, age and general health of the patient. The options range from expectant treatment, arteriographic technique to operative procedures [10].

CASE REPORT

A 14 years old boy was evacuated to the trauma center of CMH Rawalpindi, with 7 hours history of blunt abdominal trauma. He was hit in the epigastric region with a cricket bat. The initial symptom was pain at the affected site which progressively worsened and the boy started vomiting out, all what he ate. He was taken to a local doctor who prescribed analgesics and referral to a tertiary care hospital. At the time of presentation, he was restless, pale and his pulse was 120/min. FAST ultrasound revealed free fluid in the pelvis and mixed echogenic mass in the porta-hepatis. The boy was resuscitated in the trauma centre with intravenous fluids and blood transfusion. He was operated upon, through a midline laparotomy approach. Operative findings included haemoperitoneum, a 3 cm linear laceration in the diaphragmatic surface of the right lobe of liver and a laceration in the falciform ligament of the liver. Both the lacerations were repaired with Vicryl 1. Haemostasis was secured and abdominal cavity was washed with normal saline and wound closed with Prolene 1.

After about 30 minutes of the operation, the boy had a massive attack of haematemesis. The blood was fresh and did not stop with washing of stomach with normal saline. A decision for re-exploration was made. Abdomen was opened through the previous wound. Operative findings were as following:

- a. No blood in the stomach.
- b. No injury to the abdominal part of esophagus.
- c. Tense, dilated gall bladder. Aspiration revealed blood, mixed with bile.

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- d. No fresh bleeding from the liver laceration or repaired falciform ligament.

A diagnosis of Haemobilia was made. Gastro-duodenotomy was done to rule out any underlying pathology. Blood was seen coming retrograde from the ampulla of Vater. Cholecystostomy was done and a controlled fistula was made by putting a 14F catheter in the gall bladder. 2 units of blood were transfused per-operatively. The boy made a smooth recovery and there was no further episode of haematemesis. Catheter was removed after a cholangiogram on 15th post-operative day. Follow-up revealed a smooth recovery.

DISCUSSION

Haemobilia is a rare but serious complication of hepatic blunt trauma. Its diagnosis can be difficult because the delay between initial trauma and haemobilia ranges from few days to several months [11]. Although it occurs in less than 3% of liver injuries, the magnitude of bleeding may result in life threatening complications. Ten of 30 patients, in one study had haemobilia due to accidental non-iatrogenic trauma to the liver. The mean delay between the initial injury and the diagnosis was 23.5(range: 1-120) days [12]. Haemobilia can present as a late complication of laparoscopic Cholecystectomy [13]. Arterio-biliary fistula can also lead to haemobilia [13]. Percutaneous liver biopsy causes haemobilia in 5% of cases, but severe haemobilia in only 1% of cases [14].

Hepatic parenchymal bleeding may be controlled by a variety of methods, including direct ligation of the exposed vessel, packing, repair of lacerations and resection. Associated haemobilia may be treated expectantly, by drainage through gall bladder or common bile duct (CBD), or selective arterial embolization. If a common bile duct exploration is performed, selective occlusion of the right or left hepatic artery may indicate which system is involved in the bleeding. In

addition, selective occlusion of the right or left hepatic ducts may determine which duct is bleeding. In majority of cases hepatic bleeding stops with conservative management.

A high index of suspicion is required to detect haemobilia as a cause of haematemesis. Simple drainage through a patent gall bladder can be an effective mode of management in these patients.

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