



Case Report

Haemobilia of A 17 years girl following road traffic accident

Md. Rajibul Hoque¹, Mostakim Maria Alievna², Ayesha Rahman³, Md. Tuhin Talukder⁴,
Tapan Kumar Saha⁵

ABSTRACT

Haemobilia is a rare cause of gastrointestinal bleeding, which develops as a result of communication between blood vessel and biliary tract. It should be considered in patients presenting with upper gastrointestinal bleeding with prior history of blunt trauma abdomen. We present a case of 17 years girl who sustained blunt trauma abdomen due to road traffic accident. She developed hematemesis & melena with bleeding from the wound after laparotomy for liver injury. Endoscopy of upper gastrointestinal tract revealed blood coming from ampulla of Vater. CT angiography of abdomen showed pseudoaneurysm in a branch of right hepatic artery. Patient recovered completely after therapeutic embolization.

Key Words: Haemobilia, Right hepatic artery, Therapeutic embolization

Introduction

Haemobilia is defined as presence of blood in biliary tree, caused by abnormal communication between blood vessel and bile duct. It occurs mainly due to post trauma and iatrogenic causes, so diagnosis should be suspected from history.

This condition is characterized by classic triad of jaundice, pain in right upper abdomen and upper gastrointestinal bleeding¹ But classic triad of haemobilia is absent in 70% cases and in such cases clinical diagnosis is difficult. The CT angiogram is the investigation of choice and therapeutic embolization is treatment option. Surgery should be done in cases refractory to embolization.²

Here we present a case of post traumatic haemobilia, where a 17 years girl had liver injury and aneurysm in a branch of right hepatic artery following RTA. CT

angiogram of abdomen was the diagnostic tool and treatment was done by therapeutic embolization.

Case Report

17-year-old girl presented with history of road traffic accident causing blunt trauma to her right side of trunk. She developed generalized abdominal pain and distention, high grade fever and vomiting about two weeks following trauma. Emergency laparotomy was done followed by repair of liver injury. Three days after surgery patient developed copious haemorrhage from abdominal drain tube. About a week after surgery she developed sudden severe upper abdominal pain followed by hematemesis, which was followed by bleeding from laparotomy wound and melena. Same type of bleeding started to occur in episodic pattern at a frequency of four to five times a month. Patient became hemodynamically unstable during most of the episodes and was treated with frequent blood transfusions. Her liver function tests and coagulation profiles were normal. USG of whole abdomen showed hematoma in posterior segment of right lobe of liver. Initial endoscopy of upper gastrointestinal tract was normal. Next endoscopy was done in presence of active bleeding, which showed bleeding coming

1. Assistant. Professor, Dept. of Surgery, DMC&H
2. MS Phase A resident (plastic surgery), DMCH
3. Junior Consultant, Dept. of Surgery, DMCH
4. IMO, Dept. of Surgery, DMCH
5. Professor, Dept. of Surgery, DMC&H

Correspondence to: Md. Rajibul Hoque, Assistant. Professor, Dept. of Surgery, DMC&H

Received: 20 December 2018 **Accepted:** 28 December 2018

through the ampulla of Vater. CT angiogram of abdomen showed old intraperitoneal hematoma with acute haemorrhage within it from a branch of the right hepatic artery at the midpart of right lobe of liver. Therapeutic embolization of bleeding branch of right hepatic artery was done on 15th of January 2018 at Cath Lab in Dhaka Medical College Hospital. The therapeutic agent used in embolization was N – Butane 2 cyano acrylate (ONYX).

Bleeding stopped completely after the procedure and patient was discharged home with recovery.

Discussion

The term haemobilia was first introduced by Sandblom in 1948 to denote bleeding into the biliary tract following liver injury but is currently used to indicate bleeding into biliary tract from any cause.

Haemobilia has been most commonly associated with trauma including penetrating and blunt. Conversely, with the increased percutaneous interventional techniques, the frequency of iatrogenic haemobilia has been increased significantly, comprising 60% of all cases. CBD stones, cholecystitis, gallbladder cancer, Hepatic Artery Pseudo Aneurysm (HAPA), parasitic infestation and liver abscess are all reported causes of haemobilia.³ Overall HAPA and liver trauma are most common causes. Our case had history of blunt abdominal trauma at near bowel to have HAPA of one of the right hepatic artery.

The classic triad of symptoms described by Heinrich Quincke in 1871 includes pain, gastrointestinal bleeding and obstructive jaundice. This triad is not frequently observed which ranges between 20% to 40% in patients who present.

Upper gastrointestinal bleeding with melena is the commonest sign of haemobilia and is observed in 90% cases, whereas abdominal pain is present in 70% and jaundice in 60% patients; the classic Quincke's triad comprehending melena, pain in right upper quadrant, and jaundice is observed in 20-40% patients.⁴

Blood loss may be minimal or massive, and the timing of onset of symptoms relative to injury is quite variable. Arterial bleeding is episodic and often does not respond to resuscitation without intervention.⁵

Haemobilia may be classified into mild and major cases. The former tends to be relatively benign presentations which settle with conservative measures

within 48 hours. Major haemobilia, however, results in haemodynamic instability and may become rapidly life threatening in the absence of adequate resuscitations.⁶

Our case had reported episodes of massive upper GI bleeding resulting in haemodynamic instability after needing massive blood transfusion.

The diagnosis and evaluation is facilitated by widespread availability of imaging techniques. Angiography should be considered in early cases of trauma. It is useful for localizing source of bleeding.⁷

Initial management of a patient with clinical suspicion for haemobilia must begin with appropriate goal directed resuscitation and correction of coagulopathy. In haemodynamically stable patient, CT angiography is useful initial study. The sensitivity and specificity of modern CT angiography are high.⁸ In our case diagnosis was made by endoscopy of upper gastrointestinal tract during active bleeding and CT angiography.

Selective arterial embolization is the intervention of choice. It has been used extensively locally with excellent results. Our case responded completely with therapeutic embolization.

Conclusion

Traumatic haemobilia is a rare complication with a prevalence of <3% of liver injuries. It is potentially life threatening. But with the advances in endovascular treatment option, previously reported treatment failures can be managed successfully with evolving transcatheter technology and with growing clinical experience. Our patient is a testament to the success of the application of angioembolization for treatment of haemobilia following blunt trauma injury.

References

1. Beaumont R, Garcia I, Valladares MJ, et al. Haemobilia a rare entity: Case report and literature review. *Ann Clin Lab Res* 2016; 4(4): 124
2. Negi RC, Sharma B, Bhupender, Kapoor G, Verma BB, Sharma A. A rare cause of upper gastrointestinal bleeding: Post traumatic pseudoaneurysm. *International Journal of Case Reports and Images* 2014;5(5):387-390

3. L. Pran et al. A case report of bloody pancreatitis. *International Journal of Surgery Case Reports* 2017;34:81-83
4. Sansonna F, Boati S, Sguinzi R, Migliorisi C, Pugliese R. Severe haemobilia from hepatic artery pseudoaneurysm. *Case reports in Gastrointestinal Medicine*. 2011;2011:925142
5. Jill M. Dobbins, Patrick M. Rao, Robert A. Novelline. Posttraumatic haemobilia. *Emergency Radiology* 1997;4(3):180-183
6. Luhmann et al. haemobilia causing cholangitis in a patient on dual antiplatelet treatment suffering from acute calculous cholecystitis. *International Journal of Surgery Case Reports* 2013;4:368-370
7. Pasos-Altamirano G, et al. haemobilia. A case report. *Ann Hepatol* 2003;2(3):141-142
8. Zaydfudim, V.M., Angle, J.F. & Adams, R.B. Current management of haemobilia. *Current Surgery Reports* 2014;2:54