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Hepatic Artey Pseudoaneurysm: A Case Report

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ABSTRACT
Hepatic artery pseudoaneurysm is a rare complication of traumatism of the bile duct. The objective of this work is to be able to suspect this complication in case of hemobilia or hepatic colic and to make the diagnosis by hepatic Computed tomography angiography. Endovascular treatment is the least invasive method and should be considered urgently.We report a case of a young boy whose diagnosis was established by computed tomographic angiography of the hepatic artery after having presented Quincke's triad.

Introduction

Symptomatic hepatic artery pseudoaneurysm is a rare complication of traumatism of the bile duct .The existence of hemobilia should suggest the diagnosis and treatment must be carried out urgently. Transcatheter embolization is an effective treatment method.

Case Report:

We report the case of an 8 years old boy, victim of an abdominal trauma due to road traffic accidents. At the admission, the Patient was conscious, well oriented to time and place and was hemodynamically stable . A well-conducted Abdominal examination revealed tenderness in the right hypochondrium. An abdominal computed tomography was performed showing the existence of periportal oedema with intraperitoneal effusion. The child was hospitalized in the surgical emergency department and was placed in observation. A week later, he presented hemobilia, hepatic colic with sub-jaundice, which motivated the realization of an hepatic Computed tomography angiography.

This one revealed, besides hepatic contusions, a pseudoaneurysm of the right branch of the hepatic artery (figure 1).

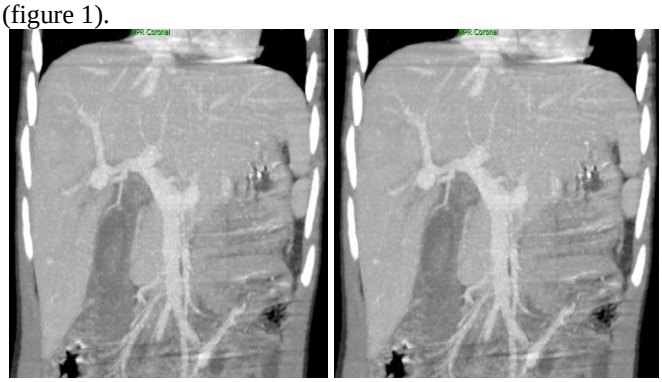

Figure 1. Hepatic Computed tomography angiography showing peri portal hepatic contusions (arrow) and a pseudoaneurysm of the right branch of the hepatic artery (star).

An embolization of the hepatic artery was urgently scheduled (figure 2 a and b).The therapeutic follow-up was marked by a good evolution with disappearance of digestive bleeding and jaundice.

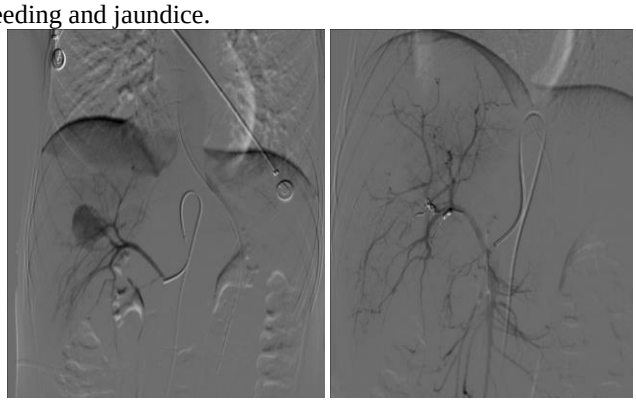

Figure 2. a. Selective hepatic artery angiography confirming the pseudoaneurysm of the right branch of the hepatic artery, b. Angiographic control after coil placement at the level of the pseudoaneurysm.

Discussion

Aneurysms of the visceral arteries are rare, the liver arteries are the 2nd site most frequently involved after the splenic artery.

Their risk of rupture is higher than other digestive localizations. Pseudoaneurysms of the hepatic artery can be seen during cholecystitis, pancreatitis, or as a result of trauma or surgery [1,2]. Pseudoaneurysms of the hepatic artery can be seen during cholecystitis, pancreatitis, or as a result of trauma or surgery [1,2]. 63% of aneurysms occur on the common liver artery, 28% on the right branch of the liver artery and 5% on the left branch of the liver artery [3].

The most formidable complication of liver artery aneurysms is the increase in size followed by rupture that can occur in free peritoneum, in the gastrointestinal tract, the portal vein, the wirsung canal or in the bile ducts that may induce the appearance of clinical signs including the Quincke triad (liver colic, jaundice, hemobilia) as is the case in our patient [2].

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The diagnosis of aneurysm or pseudoaneurysm of the liver artery can be made by selective angiography of the celiac axis and the upper mesenteric artery, by CT scan or ultrasound [4].

Currently, several methods of treatment for liver artery aneurysms are available, such as open surgery, laparoscopic surgery and endovascular treatment.

Endovascular treatment uses different methods and instruments such as coils (as in our case), cyanoacrylate, thrombin or stent. It is a less invasive way and works better in emergencies.

In our case, the first pathway was femoral, a packing of the aneurysm was achieved by filling the pseudo-aneurysm by coils.

Complications are possible such as liver infarction, thrombosis, and pseudoaneurysms [4,5].

Conclusion

The pseudoaneurysm of the hepatic artery is a rare complication of liver trauma that became more common nowadays. It should be suspected in case of any post traumatic hemobilia or hepatic colic. The diagnosis is easely made by computed tomographic angiography. Endovascular treatment is the least invasive method and should be considered urgently to alleviate complications.

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