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Case Report

Open liver trauma causing hepatico caval fistula successfully treated by embolization

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ABSTRACT

Introduction: Traumatic arteriovenous fistula results from a breach of vascular integrity between a vein and an adjacent artery. Hepato caval fistula is a rare entity. Open surgical approaches have increasingly given way to radiological embolization techniques in the treatment of these arteriovenous fistulae, especially in intrahepatic locations.

Case report: We report the case of a patient diagnosed with a fistula, from the right branch of the liver artery to the right hepatic vein, developed following an open liver trauma. Successful embolization through the transarterial route was achieved with simple outcomes.

Conclusion: The interventional radiology for endovascular management has revolutionized the treatment of hepatic liver traumas. The conservative treatment is henceforth the common approach even if hepatic artery or hepatic veins are involved in case of arteriovenous fistula.

Introduction

Hepatic arteriovenous fistulae (AVF) are described as an abnormal communication between the hepatic artery and portal or hepatic vein. Congenital hepatic AVF are rare. Acquired ones are more common. They can occur secondary to iatrogenic causes, like percutaneous invasive vascular interventions such as cardiac catheterization, central venous catheterization or even percutaneous biopsies [1,2]. AVF occurs also following mechanical insult like blunt or penetrating trauma. Hepato-caval arteriovenous fistula is rarely observed (few cases are reported in literature). We herein report a case of hepato-caval fistula following a stab wound of the liver. We discuss the diagnostic approach and the therapeutic modalities taken at this situation.

Observation

A 54 years old patient, with no significant pathological history, was admitted to the digestive and general surgery department for right thoraco-abdominal stab wound. At physical examination, there was a 1 cm linear sub-xiphoid wound, with clear shores, bleeding, with a subcutaneous hematoma. Blood pressure was 130/80 mm Hg, the heart rate measured to be 82 bpm and blood

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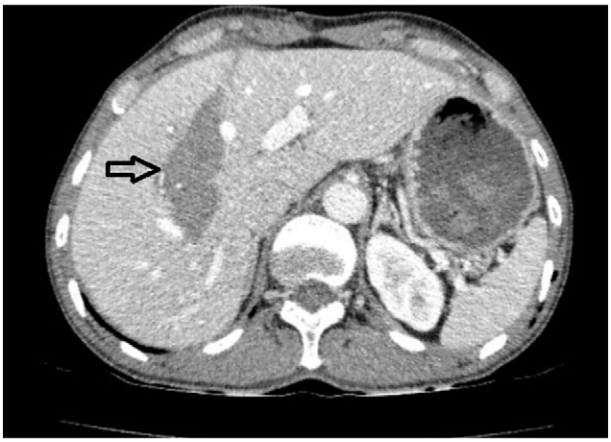

Fig. 1. Abdominal CT scan showing hepatic laceration (arrow) of segments IV, V and VIII without extravasation of contrast medium.

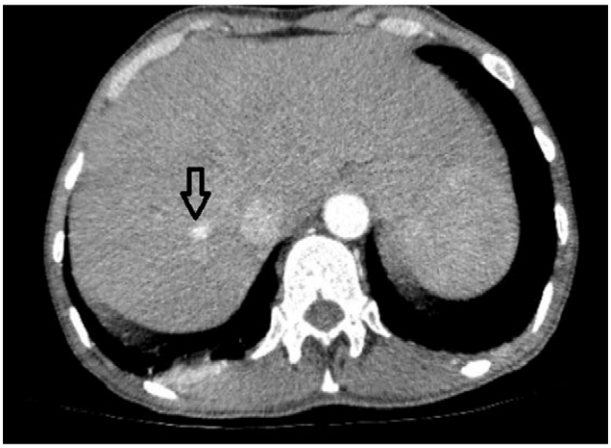

Fig. 2. Hepatic CT angiography showing opacification of the right hepatic vein (arrow) and the retrocaval vena cava in the early arterial phase.

Fig. 3. Vascular reconstruction from the CT angio-scan demonstrating a communication between the right branch of the hepatic artery (arrow) and the right hepatic vein (star).