

# Portal hypertension due to hepatic arterioportal fistula

**Authors:** Kadhim, A MD, Han M.T., MD

Division of Gastroenterology and Hepatology, Rutgers New Jersey Medical School, Newark, NJ, USA

## **Introduction:**

Hepatic arterioportal fistulae (APF) are an abnormal connection between the hepatic artery and the portal vein. It can lead to clinically significant portal hypertension. We present a case of hepatic APF presenting as an esophageal variceal bleeding.

## **Case:**

A-73-years old male with history of gun shot wound in 1973 status post exploratory laparoscopy who presented for hematemesis and melena. The patient had a new-onset recurrent ascites that required multiple paracentesis for few months. His chronic liver disease work-up was not revealing. His chronic liver disease laboratory work-up was not revealing with no evidence of end-stage liver disease. The patient underwent CT abdomen that demonstrated arterioportal fistula involving right hepatic arterial territory with evidence of portal hypertension. The patient underwent an EGD (Esophagogastroduodenoscopy) that showed Severe hypertensive portal gastropathy was found in the entire stomach with mucosal hemorrhage. He underwent successful embolization of the right arterioportal fistula performed by interventional radiologist. Subsequently the patient's melena resolved.

## **Discussion**

Arterioportal fistula causes arterial blood to follow directly into the portal vein bypassing the hepatic sinusoids which can result in portal hypertension. The presenting symptoms commonly include gastrointestinal bleeding, ascites, congestive heart failure, abdominal pain, and diarrhea. However up to 25% of patients are asymptomatic. Hepatic APF can be spontaneous, traumatic or iatrogenic. Liver biopsy is thought to be the most common cause of iatrogenic hepatic APF with some studies reporting the incidence to be up to 5.4%. Early diagnosis and recognition is important because hepatic APF is usually curable. Historically, the treatment of choice was surgical ligation of the hepatic artery, however with new advances in interventional radiology; currently the treatment of choice is endovascular transcatheter arterial embolization.

## **Conclusion**

Hepatic Arterioportal fistula is one of the important causes of non-cirrhotic portal hypertension. Early diagnosis and recognition is vital as it is usually curable with reversal of portal hypertension.