C.S. Pitchumoni, MD, Editor

Fellows' Corner

Giant Paraumbilical Veins/Caput Medusae

by Amulya Belagavi, Lisa Meringer

CASE PRESENTATION

A 48-year-old woman who was initially diagnosed with Hepatitis C, subsequently developed compensated cirrhosis of liver and portal hypertension with a complication of hepatocellular carcinoma. She presented to the hospital with lower abdominal pain. On examination, vitals were stable. She was noted to have massive splenomegaly, without hepatomegaly, hepatic bruit, ascites or pedal edema. In the periumbilical region were distended superficial veins similar in appearance to caput medusae, but without any bruit around the umbilicus. The CT of the abdomen is as shown in Images 1 and 2.

1. What is the abnormality seen?
2. What are the implications of the abnormality and treatment options?
3. What is the diagnosis if there was an additional finding of a bruit around the umbilical area?

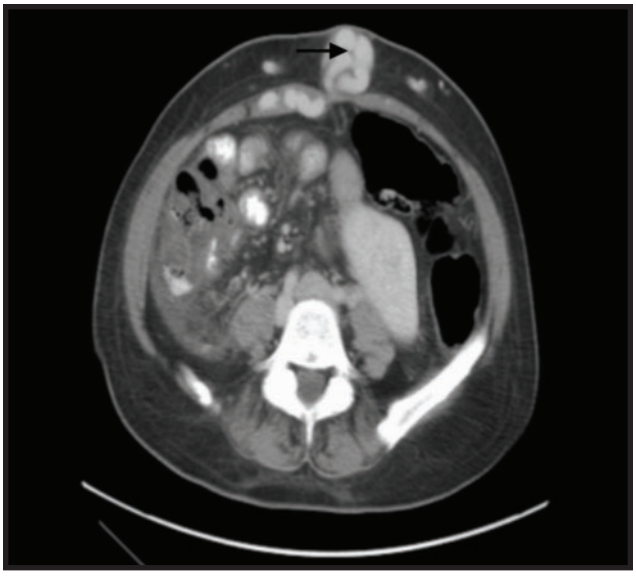

Figure 1. Dilated paraumbilical veins representing caput medusae.

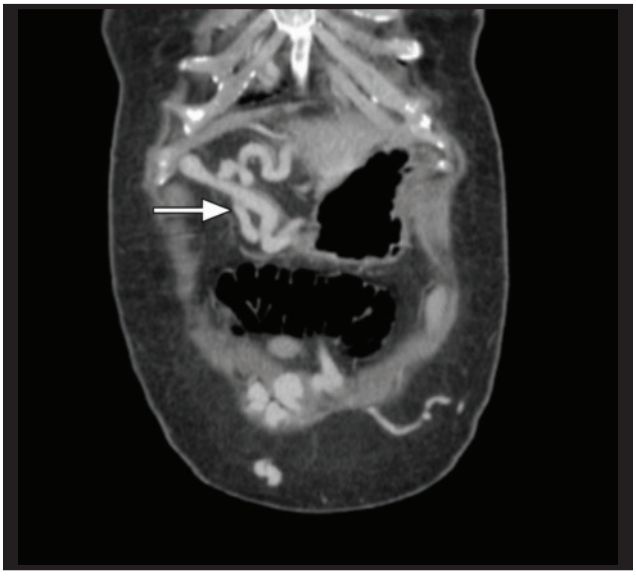

Figure 2. Recanalized paraumbilical vein connected to the left branch of the portal vein.

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DISCUSSION

Caput medusae are a network of dilated veins around the umbilicus and are one of the manifestations of portal hypertension from cirrhosis of the liver. The term is Latin for Head of Medusa and originates from its similarity to Medusa's hair.

Caput medusae may be left alone. Embolization or transjugular intrahepatic portosystemic shunt may be used to decompress the collateral route in cases of hemorrhage. Knowledge of the other collaterals is essential since they may undergo spontaneous hemorrhage or bleeding from disruption of these vessels during surgical procedures.[1] They also had lesser episodes of bleeding from esophageal varices. At times this could be mistaken for paraumbilical hernia.

Cruveilhier-Baumgarten (CB) syndrome, described by Cruveilhier (1835) and Baumgarten (1908), refers to a murmur over the umbilicus often in the presence of caput medusae, resulting from portal hypertension, usually with hepatic cirrhosis. Recanalization of the umbilical vein with reverse blood flow from the liver into the abdominal wall veins creates the murmur.[2]

Embryologically, the left umbilical vein undergoes gradual atrophy to form the ligamentum teres in the falciform ligament. A small portion of the umbilical vein at its junction with the left portal vein may remain patent throughout life. CB syndrome represents spontaneous portosystemic collateralization between the paraumbilical vein and the veins of the anterior abdominal wall in a patient with portal hypertension. ■

References

1. Liu CH, Hsu CH. Caput medusae. Clin Gastroenterol Hepatol. 2011 Sep;9(9):A26. doi: 10.1016/j.cgh.2011.03.035. Epub 2011 Apr 8.
2. Arora A, Mukund A, Patidar Y, Khera P. Cruveilhier-Baumgarten syndrome: intriguing for the hepatologist, caveat for a surgeon.ANZ J Surg. 2013 Jan;83(1-2):86-7

Fellows' Corner

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- Send in a brief case report.
- No more than one double-spaced page.
- One or two illustrations, up to four questions and answers and a three-quarter to one-page discussion of the case.
- Case to include no more than two authors.

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