How to evaluate hemodynamics of gastric varices effectively?

March 5 2010

Gastric varices (GV) are an important complication of portal hypertension. As an almost atraumatic method, computed tomography (CT) angiography has been used widely to show the portal vein system. However, the collateral circulation of GV in different locations has been reported only rarely.

A research article published on February 28, 2010 in the World Journal of Gastroenterology addresses this question. A research team led by Professor Wen He from Beijing Friendship Hospital, Capital Medical University, China, used multidetector computed tomography portal venography (MDCTPV) to study the collateral circulation of GV.

Eighty-six patients with GV diagnosed by endoscopy were selected and classified into three types according to the location of esophageal varices (EV) and GV. In contrast to previous studies, their study focused on the relationship between the collateral circulation and the location of the EV and GV.

It was revealed that the afferent vein originated mostly from the left gastric vein (LGV). The most common efferent vein was via the azygos vein to the superior vena cava. As for gastroesophageal varices type 1, the afferent vein of the GV mainly originated from the LGV and the efferent veins were mainly via the azygos vein to the super vena cava. In patients with gastroesophageal varices type 2, the afferent vein of the GV mostly came from the posterior gastric vein/short gastric vein (PGV/SGV), and the efferent vein was the azygos vein and

gastric/splenorenal shunt. In patients with isolated GV, the main afferent vein was the PGV/SGV and the efferent vein was mainly the gastric/splenorenal shunt to the inferior vena cava.

This study concluded that as a noninvasive method, MDCTPV could provide clinicians with a valuable reference in the endoscopic and surgical treatment of GV bleeding.

More information: Zhao LQ, He W, Ji M, Liu P, Li P. 64-row multidetector computed tomography portal venography of gastric variceal collateral circulation. World J Gastroenterol 2010; 16(8): 1003-1007. www.wjgnet.com/1007-9327/16/1003.asp

Provided by World Journal of Gastroenterology