



Portal Systemic Anastomosis - HTN			
Location	Portal Vein Tributaries	Caval Tributaries	Note
<b>A</b> Lower end of Esophagus	Left Gastric Vein	Azygos & Hemiazygos Veins	<b>Esophageal Varices → Hematemesis</b> <i>Food passing through Esophagus may rupture dilated veins</i>
<b>B</b> Lower end of Anal Canal	Superior Rectal Vein <i>Drains into IMV</i>	Inferior & Middle Rectal Veins <i>Drains into internal Iliac vein</i>	<b>Varicosity → Hemorrhoids</b>
<b>C</b> Umbilicus <i>Anterior abdominal wall</i>	Para-Umbilical Veins <i>Along ligamentum teres</i>	Tributaries of Superior & Inferior Epigastric Veins	<b>Caput Medusae</b> <i>Dilated tortuous veins radiating from the umbilicus</i>
<b>D</b> Retroperitoneal Organs <i>Bare area of the Liver</i>	Veins of colon, duodenum, pancreas, spleen, etc.	Veins of Renal, Lumbar, azygos, etc.	<b>Dilated veins around the posterior abdominal wall</b> <i>Can't see clinically</i>
	<b>Venous Sinusoids of Liver</b>	<b>Diaphragmatic Veins - Intercostal &amp; Phrenic</b>	

Portal-Caval anastomoses enlarge during portal hypertension, in which there is resistance to intrahepatic blood flow. This forces the blood in the portal venous system to take an alternate route (the caval systemic venous system) back to the heart. The increased blood flow leads to enlargement of blood vessels and could possibly lead to a rupture of the anastomosis. This table outlines the main sites of anastomosis, the vessels involved, and the consequences of each.

 Caval Venous System  
 Portal Venous System

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