

Morphological variation in the celiac trunk branching and clinical significance

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The celiac trunk is critical for the arterial supply to the supracolic organs of the foregut. Previous cadaveric studies have shown the presence of varied branching patterns of the celiac trunk in about 15% of the population. Knowledge of the typical and aberrant anatomy of the celiac trunk is essential to gastroenterological surgeons and radiologists for surgical, diagnostic, and vascular procedures. During routine dissection of a 93-year-old female embalmed cadaver, pentafurcation of the celiac trunk was observed. Systemic review of literature was conducted to collect available data pertaining to current knowledge of anatomical variations of the celiac trunk and their clinical significance. The celiac trunk is the first ventral branch of the abdominal aorta. In the majority of cases, it arises as a single trunk and trifurcates to provide the classical branches – left gastric, splenic and common hepatic arteries. Observed celiac trunk was 3 cm in length. Left gastric artery and right inferior phrenic artery originated proximal to bifurcating hepatosplenic trunk. Right middle adrenal artery originated on the level of bifurcation of hepatosplenic trunk. The celiac trunk and its branches present numerous challenges for radiologists and surgeons. With the progressive advancement of computed tomography, dissection is no longer the only method for evaluation of arterial pathologic conditions. However, discovery of anatomical variations motivates a greater understanding and appreciation of human anatomy and its clinical implications in undergraduate school.