

Complex anatomical variant of inferior vena cava – a case study

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Abstract

This case has multiple anatomical variants of the inferior vena cava and its branches which determine the appearance of associated arterial abnormalities. The study has been performed on a female corpse, aged average 60, with no other morphological changes of the blood vessels or retroperitoneal viscera. The method we used was classical dissection. We described a variant of the inferior vena cava formation and persistence of bilateral double renal arteries with changes of arterio-venous relations in the renal pedicles. We established correlations between the embryological development of the inferior vena cava and the renal vessels and we explained its appearance mechanisms. The peculiar aspect of the study is that anomalies in development of the inferior vena cava system have determined the disturbance of successive development of renal arteries during "ascensus renis" process. We consider important for the surgeon to have knowledge of possible anatomical variants of large retroperitoneal vessels in order to have a clear interpretation of the CT Angiography and Magnetic Resonance Angiography in such cases.

Key words: inferior vena cava, renal artery, post cardinal veins, intersubcardinal anastomosis

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