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VARIANT ANATOMY OF THE STRUCTURAL ORGANIZATION OF THE RENAL ARTERY LINKS

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ABSTRACT

The aim of the study was a three-dimensional anatomical analysis of the structural organization of the links of the renal arteries. The material for the study was 116 corrosive preparations of the arterial system of the human kidney, which were subjected to 3D scanning, followed by analysis in the Mimics-8.1 and 3D-max computer programs. It was found that in the kidneys with various types of branching of A. zonal (II) there were differences in the number of vessels of subsequent orders. According to the data of the study, it was concluded that the structural organization of the links of the renal arteries had pronounced anatomical variability at all organization levels, which largely depended on the variant of division of A. renalis (I) against the frontal, horizontal and sagittal planes, as well as the type of intra-organ branching of A. zonal (II). In addition, it has been suggested that the segmental arteries are the interlobular arteries, which in the magistral type of branching are represented by arteries of the third (III) order, and in the dispersal type by the arteries of the third (III) and fourth (IV) orders.

Keywords: kidney, renal artery, segment.