1. ANATOMICAL VARIANTS OF THE MEDIAN SACRAL ARTERY

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Introduction. Knowing the anatomical variants of the median sacral artery has the applied significance, since it is necessary for the surgeons when choosing the operational techniques, in order to ensure the safe access to the presacral space structures. The median sacral artery (hereinafter referred to as the 'MSA') is an azygos blood vessel, which is located in the midline, is of small calibre, begins at the dorsal semi-circumference of the abdominal aorta, at the level of the bifurcation thereof, and ends in glomus coccygeum. The MSA is a continuation of the abdominal aorta and a source of vascularisation for the coccyx region of the human organism.

Aim of study. Assessing the anatomical variants of the median sacral artery, based on the morphological and topographical criteria, which were found in different reference sources.

Methods and materials. The information on this topic was selected from 15 reference sources, and the specified data were analyzed, from the point of view of morphological and topographical variations of the median sacral artery.

Results. It has been stated, based on the information as provided in the specialized references, that median sacral artery arises, in the majority of cases, in the dorsal part of the aorta, over the bifurcation thereof, at a distance of 5 to 18 mm, and more seldom directly at the bifurcation level. In reference to the posterior midline, the MSA is more frequently located on the left side of the midline, in case – right on the midline, and in the remaining cases, on the right side of the midline. It has been also stated that in those cases when the abdominal aorta bifurcation is over the level of inferior vena cava formation, then the median sacral artery has a descending rectilinear pathway, and only sometimes – a descending sinuous pathway. In reference to the left/right common iliac veins, there have been identified the following locations of the MSA: its location in the midline, as correlated to both veins, has been stated in 40.9% of cases; its deviation to the left, next to the left common iliac vein has been stated in 31.2% of cases; its direction to the right common iliac vein has been stated in 27.3% of cases. Several authors mention the cases of rare occurrence, when the median sacral artery priorly intersects the left common iliac vein, on its pathway.

Conclusion. The point of origin of the median sacral artery varies, and it may have different pathways, both rectilinear and sinuous ones. Topographically, the MSA is located differently, in reference to blood vessels and adjacent formations. Knowing the anatomical variants of the median sacral artery, as pertaining to its morphological and topographical peculiarities, will be a great benefit for the practical medicine and it has a major importance when carrying on surgical interventions at the presacral space level, or various gynecological procedures.