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DEVELOPMENT OF INTRAPERICARDIAL PORTION OF THE RAT CRANIAL CAVAL VEINS DURING POSTNATAL ONTOGENESIS

ABSTRACT. Background. Different compartments of caval veins function under different hemodynamic conditions. Negative pressure in the pericardial cavity during ventricular systole promotes more effective blood filling of both the atria and the intrapericardial portions of caval veins. During the period of embryogenesis the orifice portion of the caval veins undergoes the most complex changes. **Objective.** To reveal the peculiarities of structure and morphometric parameters of the intrapericardial portion of right and left cranial caval veins in rats during postnatal ontogenesis. **Methods.** Investigation was performed on 50 white rats at the age of 1, 6, 11, 16, 22 and 30 days. Intrapericardial portion of right and left cranial caval veins have been studied. Histological specimens were stained with hematoxylin and eosin, Weigert and van Gieson methods. **Results.** Age-related and local changes in the structure and morphometric parameters of rat cranial caval veins during postnatal ontogenesis have been estimated. During the early rat postnatal ontogenesis the walls of cranial caval veins have their maximum thickness in the area of the vessel's orifice. During 30 days of postnatal life in the intrapericardial portions of vessels the thickness of the left cranial caval vein predominates over other parts. **Conclusion.** Histogenesis of paired cranial caval veins in rat during early postnatal ontogenesis depends on both the hemodynamic function and the location and impact of their adjacent organs.

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