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# Analysis of the Right Hemiliver Venous System in Laboratory Rats

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The progress in clinical hepatobiliary surgery calls for an increase of similar procedures in experimental surgery [1,2]. A comprehensive understanding of surgically important vessel of the liver is essential in maintaining the excellent results [3]. The current study is based on the morphological analysis of hepatic veins in 20 adult Wistar rats of both sexes, with the aid of corrosion casts, microscope (Leica M 320) and computed tomography. The right hemiliver was selected in respect of the fact that this area is found in majority of small accessory hepatic veins in humans. The main structure of hepatic venous system was identical with the lobulated liver segmentation. Right hepatic venous system consists of 3 proper hepatic veins: the right hepatic vein (RHV), superior right hepatic vein (SRHV) and inferior right hepatic vein (IRHV). The length (cm±SD) of RHV was 2.43±0.30, while SRHV showed the length parameters of 1.18±0.20, and IRHV showed 1.71±0.30. In addition to standard hepatic venous drainage, accessory hepatic veins (AHV) were present participating in the formation of the liver venous system. In all livers, there were fully identified 35 AHV and the number of them ranged from 1 to 5. AHV were found in the whole inferior right lobe and in 10% of cases in caudal periphery of the superior right lobe. The length of these veins ranged from 0.5 to 1.4 cm with the median length of 0.88±0.29 (cm±SD). Advancing the knowledge on hepatic veins helps to determine the best hepatectomy in order to avoid transection of the major venous branches.

References:

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