Variant anatomy of the right portal vein in a black Kenyan population

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Abstract

Surface mapping of the liver before invasive procedures depends on a proper understanding of its segmental vasculature. The right portal vein ramification and lengths show marked variations and these mostly involve its right posterior sectoral branch. Their incidence is variable among populations and altogether undocumented among Africans. One hundred livers obtained during autopsies and dissections at the Department of Human anatomy, University of Nairobi, were used in this study. Gross dissection was done to reveal and determine the branching pattern of the right portal vein and the origin of the right posterior sector branch. The lengths of the right portal vein were also measured and recorded. When present, the right portal vein terminated by bifurcation in 61% of the cases, trifurcated in 20.8% and quadrifircated in 18.2%. Its length was between 0.5cm and 4cm. The right posterior sector vein was given off the main portal vein in 34 cases, the common left portal vein trunk in 15 cases, and the right portal vein in 42 cases. In 9 cases, it was not observed at the porta hepatis. We report significant different incidences of the variant anatomy of the right portal vein compared to those found in previous studies and this should be borne in mind when doing surgical interventions