Two Rare Cases of Anomalous Veins

- (1) Left hepatic vein opening to the right atrium,
- (2) Three left pulmonary veins opening to the left atrium

By

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Summary: Two rare cases of anomalous veins are reported. (1) The left hepatic vein opened directly to the right atrium, not to the inferior vena cava, in a 53-year-old female undergoing dissection, 1977. This anomalous vein is regarded as a remnant of the embryonic Vena revehens hepatis sinistra. (2) Three left pulmonary veins opened separately to the left atrium in an 81-year-old female undergoing dissection, 1978. In this case, the left lung was composed of two lobes.

Case Report

- (1) *A case of the left hepatic vein opening directly to the right atrium not to the inferior vena cava* (Figs. 1 and 2).

This anomalous vein was found in a 53-year-old female undergoing dissection in Kumamoto University Medical School, 1977. In this case, there were three hepatic veins: two veins from the Lobus hepatis dextra and one vein from the Lobus hepatis sinistra. The latter, which showed unusual drainage, perforated the Diaphragm at 2 cm leftwards to the Foramen venae cavae and then entered into the right atrium of the heart together with the Sinus coronarius with a common

opening to the heart. This opening revealed conical swelling and had no Valva sinus coronarii.

This anomalous hepatic vein is regarded as a remnant of the Vena revehens hepatis sinistra which develops during the embryonic period (see Hoshino, 1960) and as a rare abnormality in the adult. Only one other dissected case of the same anomaly has been reported in Japan (Outi and Unehira, 1964).

The other two hepatic veins from the right lobe of the liver were not abnormal. They correspond to the V. hepatica dextra and V. hepatica media, respectively, and opened to the inferior vena cava.

- (2) *A case of three left pulmonary veins opening separately to the left atrium* (Figs. 3 and 4).

This anomalous case was found in an 81-year-old female undergoing dissection in Kumamoto University Medical School, 1978. The right pulmonary veins were not abnormal: two veins, the V. pulmonalis superior dextra and V. pulmonalis inferior dextra, opened separately to the right atrium of the heart.

On the left side, however, there were three pulmonary veins. They were separated from each other through the root of the left lung to the heart. All these three veins opened to the left atrium. Of the three pulmonary veins, the middle one (7 mm in caliber at the opening) was smaller than both the upper one (15 mm) and the lower one (12 mm) as shown in Fig. 4.

It is considered that this kind of venous anomaly is very rare. No instance of the same anomaly as the present case was classified by Adachi (1938), and only a few similar cases are listed in the report by Arai (1958) who studied the

pulmonary veins and bronchi statistically. Some textbooks of anatomy have mentioned that there may be separate openings for the veins from all three lobes of the right lung. From this viewpoint, the present case appears to be an exceptional one, since the left lung in our case was composed of two lobes.

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PLATES

Explanation of Figures

Plate I

- Fig. 1. Drawing of the direct drainage of the left hepatic vein (S) to the right atrium. D; V. hepatica dextra; M; V. hepatica media.
- Fig. 2. Opening of the left hepatic vein (S) to the right atrium.

Plate II

Fig. 3. Drawing of three left pulmonary veins separately entering into the left atrium.

Fig. 4. Openings (arrows) of the three left pulmonary veins to the left atrium. Inside view of the left half of the heart.