Echocardiography of a 3-month-old male infant revealed total anomalous pulmonary venous connection, and the patient was referred to our hospital for further evaluation. Oxygen saturation by pulse oxymetry was 84%. Echocardiographic examination revealed that the right atrium and ventricle were enlarged, whilst the left atrium and ventricle were smaller. There was an atrial septal defect with a right-to-left shunt. Pulmonary venous flow to the left atrium could not be seen. The pulmonary veins were connected behind the left atrium, opening to the left brachiocephalic vein through a vertical vein. Catheterization and angiography revealed that in the venous return phase of injection to the pulmonary arteries, the pulmonary veins were opening to a confluence behind the left atrium and in contact with the superior caval vein through a vertical vein draining to another connecting vein. The left brachial, axillary, subclavian veins and the external jugular veins were opening into the superior caval vein by the left brachiocephalic vein (Figure). A diagnosis of supracardiac type total anomalous pulmonary venous connection with atrial septal defect was made, and the patient treated surgically. The vertical vein was draining into another connecting vein instead of the left brachiocephalic vein and this, lying anterior to the brachiocephalic trunk and left carotid artery, connected with the superior caval vein. This second vein, with the same calibration, was seen in front of the brachiocephalic artery and the left carotid artery, and was also connecting to the superior caval vein.

Figure—Double parallel and longitudinal venous vessels. *Supplementary video files associated with this presentation can be found in the online version of the journal.