

CASE IMAGE

Pulmonary hypertension due to left upper lobe partial anomalous pulmonary venous return

Sol üst lob parsiyel pulmoner venöz dönüş anomalisine bağlı pulmoner hipertansiyon

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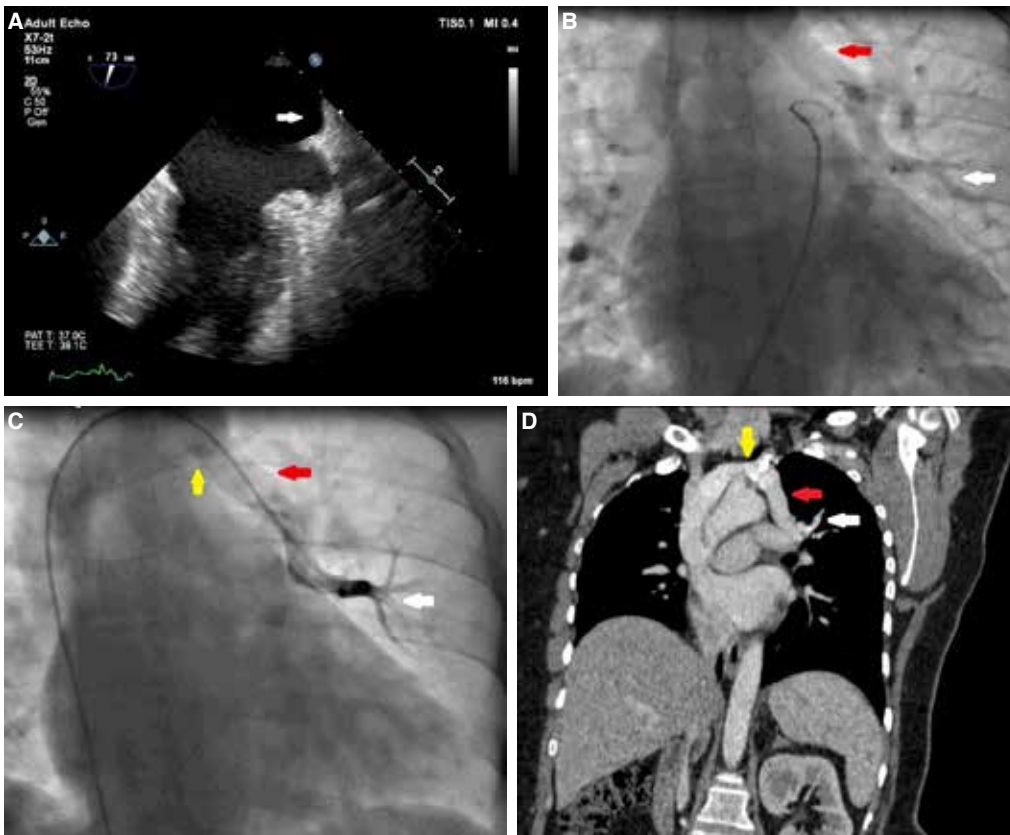
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A 42-year-old woman presented at outpatient clinic with complaint of shortness of breath on exertion. Blood pressure and heart rate were 130/75 and 80/bpm, respectively. Physical examination revealed 2/6 systolic murmur in tricuspid area. Electrocardiogram was normal. Transthoracic echocardiography (TTE) showed mild tricuspid regurgitation with estimated systolic pulmonary artery pressure (PAPs) of 45 mmHg. Since right heart chambers were mildly dilated, she underwent transesophageal echocardiography (TEE), which demonstrated absence of left upper pulmonary venous flow and a blind pouch

(Figure A, Video 1*). TEE did not reveal any coexistent anomaly. Right heart catheterization exposed flow-mediated pulmonary hypertension with systolic pulmonary artery pressure of 40 mmHg, pulmonary vascular resistance of 2.5 Wood units and Qp/Qs ratio of 1.5. In addition, increase of saturation from 60% to 85% in high superior vena cava raised suspicion of partial anomalous pulmonary venous return (PAPVR). Venous phase of pulmonary angiogram displayed drainage of left upper pulmonary vein into vertical vein (Figure B, Video 2*). Selective contrast injection depicted left upper pulmonary vein and vertical vein (Figure C, Video 3*). Preoperative computed tomography demonstrated vertical vein and left brachiocephalic vein connection (Figure D). Vertical vein was anastomosed to left atrium via thoracotomy. Postoperative period was uneventful. TTE showed normal right heart chambers and mild tricuspid regurgitation with estimated PAPs of 30 mmHg on sixth month examination.



Figures– (A) Blind pouch (arrow) on expected site of left upper pulmonary vein on transesophageal echocardiogram. (B) Venous phase of pulmonary angiogram demonstrated left upper pulmonary vein (white arrow) and vertical vein (red arrow). (C) Vertical vein (red arrow) and anomalous pulmonary vein (white arrow) were selectively engaged through brachiocephalic vein (yellow arrow) and visualized. (D) Left upper pulmonary vein (white arrow), vertical vein (red arrow), and connection with left brachiocephalic vein (yellow arrow) were demonstrated on computed tomography. *Supplementary video files associated with this presentation can be found in the online version of the journal.