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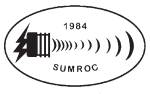

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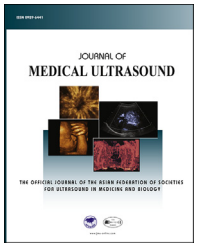

Letter to the Editor

Prenatal diagnosis of persistent left superior vena cava is associated with coarctation of the aorta — A case report

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KEYWORDS
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Abstract A singleton pregnant woman was found to have persistent left superior vena cava (PLSVC) of the fetus at 22 weeks by ultrasound. Follow-up scans revealed PLSVC, dilated coronary sinus, dominant right heart, some pericardial effusion, and hypertrophy of the right ventricular wall. The woman had an abdominal delivery at 34 weeks due to rupture of membranes. The baby was found to have coarctation of the aorta postnatally and had aortic reconstruction at 31 days of age. A prenatal ultrasound finding of PLSVC might be associated with coarctation of the aorta and it warrants specialist follow-ups and complete workup of echocardiography prenatally and postnatally.

The pregnant woman was referred to our clinic at 22 weeks because of an increased NTD (Neural Tube Defects) risk at 1/113 by the quadruple screen test. The karyotype of the fetus was 46, XX. This was her third pregnancy. Her previous two pregnancies were generally uneventful and both were delivered by Cesarean section. A detailed fetal anatomical ultrasound screening revealed normal fetal anatomy except for a persistent left superior vena cava (PLSVC) and a dilated coronary sinus (Fig. 1a & 1b). A follow-up scan was performed at 26 weeks, and, in addition to the PLSVC and the dilated coronary sinus, the fetus was found to have a dominant right heart, with some pericardial effusion and hypertrophy of the right ventricular wall (Fig. 2a & 2b).

An advanced fetal echocardiography was performed by our pediatric cardiologist at 27 weeks, and the findings

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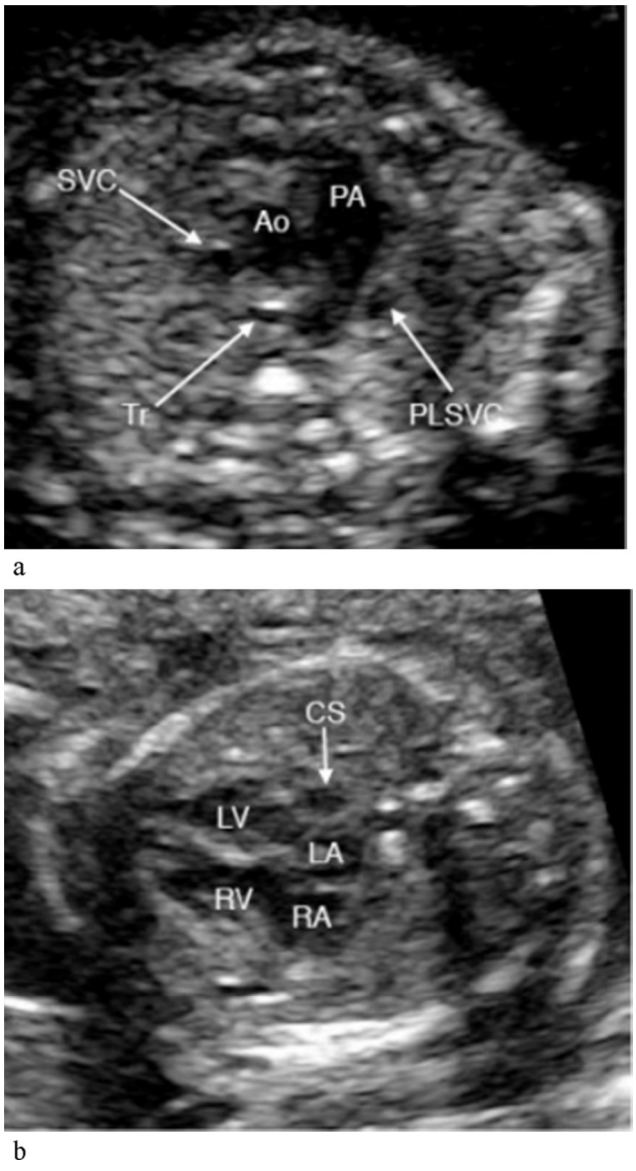

Figure 1 22 weeks: (a) Three-vessel-trachea view. The PLSVC is identified as an additional vessel on the left side of the pulmonary artery. (b) Four-chamber view. The dilated coronary sinus bulges into the left atrium. PA: pulmonary artery, Ao: aorta, SVC: superior vena cava, Tr: trachea, PLSVC: persistent left superior vena cava, LA: left atrium, LV: left ventricle, RA: right atrium, RV: right ventricle, CS: coronary sinus.

included PLSVC, a dilated coronary sinus, a patent and unrestricted foramen ovale, pericardial effusion, and a relatively dominant right heart and a small left heart, with pulmonary artery diameter 5.6 mm (Z score: −0.1), aortic diameter 3.8 mm (Z score: −1.9), mitral valve annulus 5.7 mm (Z score: −2.7), tricuspid valve annulus 6.7 mm (Z

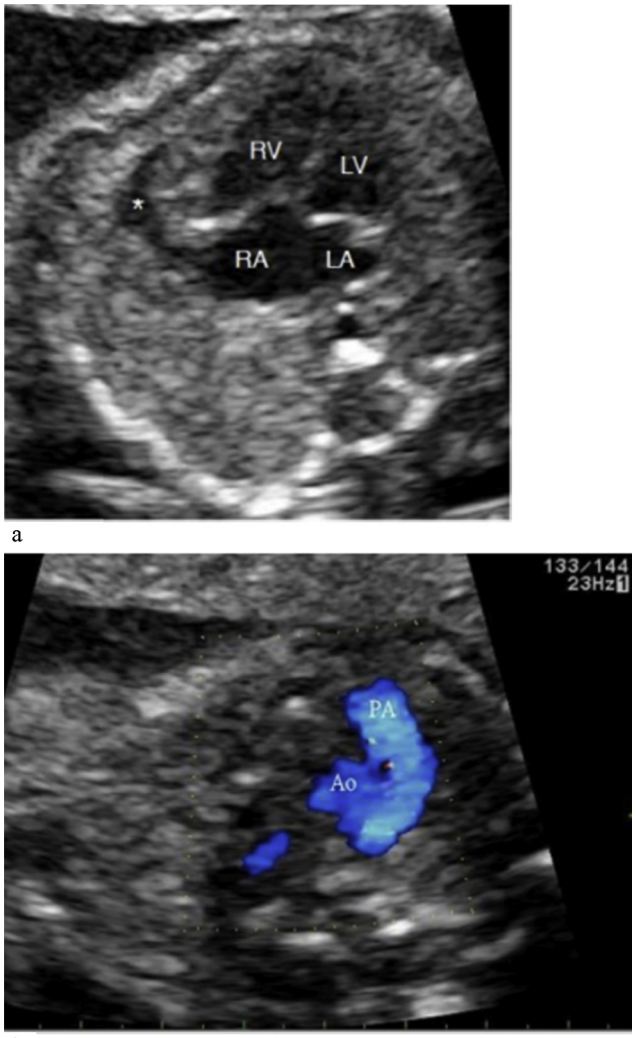

Figure 2 26 weeks: (a) Four-chamber view showing the hypertrophy of the right ventricular wall and mild pericardial effusion (*). (b) Three-vessel-trachea view.

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