



IMAGE IN CARDIOLOGY

Heart failure in a young adult: A rare cause[☆]



Insuficiência cardíaca aguda no adulto jovem - uma causa rara

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Case report

A 27-year-old man of disadvantaged socioeconomic status went to the emergency department due to progressively worsening dyspnea on minimum exertion accompanied by lower limb edema. On admission his peripheral oxygen saturation was 80% in room air. Physical examination revealed central cyanosis, digital clubbing, watch-glass nails, and jugular venous distention. Laboratory tests showed hemoglobin 23 g/dl, hematocrit 70%, BNP 3000 pg/ml and hyperuricemia. The chest X-ray revealed cardiomegaly and the ECG documented sinus tachycardia with right axis deviation and right ventricular hypertrophy. Transthoracic echocardiography revealed a large common vessel (persistent truncus arteriosus) exiting both ventricles (Figure 1) and a single tricuspid valve (Figure 2) with moderate regurgitation; a subvalvular ventricular septal defect (Figure 3) was also visible. The left ventricle was severely dilated with severe global dysfunction, and there was also right ventricular dilatation with impaired global function.

Three phlebotomies were performed during hospital stay. Signs of congestion were relieved by intravenous diuretics and the patient was discharged after seven days, referred to the adult congenital heart disease clinic at the reference hospital.

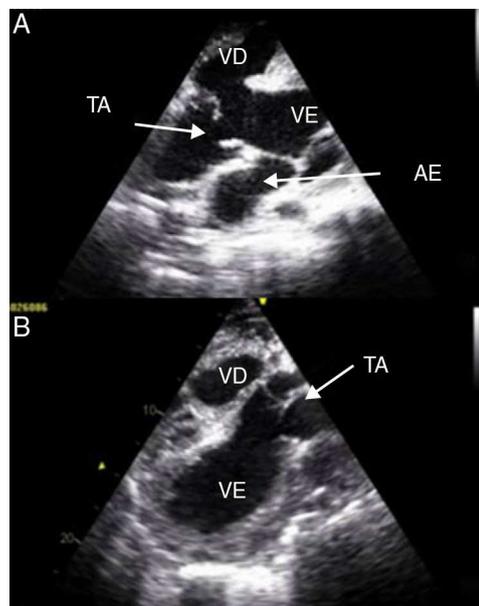


Figure 1 Large common vessel exiting both ventricles. (A) Subcostal view and (B) parasternal long-axis view. AE: left atrium; TA: truncus arteriosus; VD: right ventricle; VE: left ventricle.

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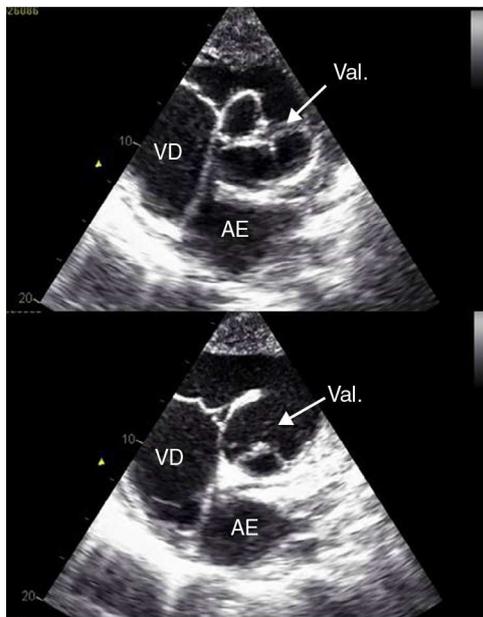


Figure 2 Single tricuspid valve by the left ventricular outflow tract and the left atrium, in parasternal short-axis view. AE: left atrium; Val.: valve; VD: right ventricle.

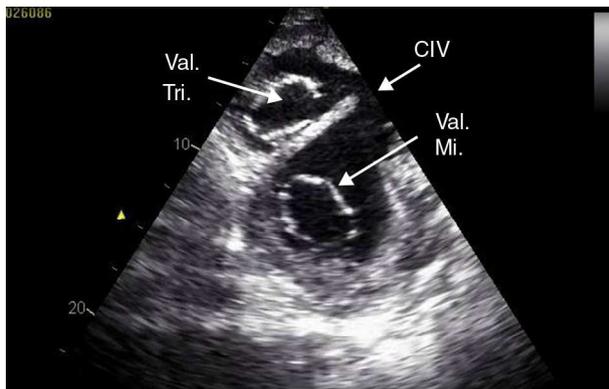


Figure 3 Subvalvular ventricular septal defect at the level of the plane of the mitral valve leaflets and the tricuspid valve, in parasternal short-axis view. CIV: ventricular septal defect; Val. Mi.: mitral valve; Val. Tri.: tricuspid valve.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data and that all the patients included in the study received sufficient information and gave their written informed consent to participate in the study.

Right to privacy and informed consent. The authors declare that no patient data appear in this article.

Conflicts of interest

The authors have no conflicts of interest to declare.