Prominent CV wave in severe tricuspid regurgitation

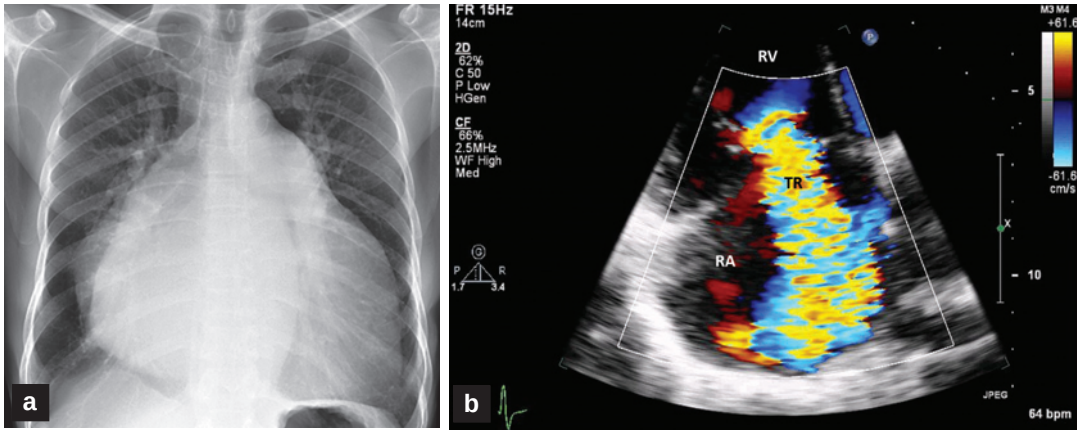

FIG 1. (**a**) Chest X-ray showing gross cardiomegaly with features of right atrial enlargement (**b**) Echocardiographic demonstration of severe tricuspid regurgitation due to non-coaptation of tricuspid valve leaflets, right ventricle

A 50-year-old man was admitted with progressively worsening dyspnoea for 1 month. He was in atrial fibrillation with fast ventricular rate and heart failure. The upper limb blood pressure was 110/80 mmHg. The jugular venous pressure was elevated with prominent cv wave visible in the sitting position (video available at *www.nmji.in*). Cardiovascular examination revealed cardiomegaly and grade 2/6 holosystolic murmur in the left lower sternal border increasing on inspiration. He had tender hepatomegaly with systolic hepatic pulsations. Normal vesicular breath sounds were noted bilaterally without adventitious sounds. Chest X-ray revealed gross cardiomegaly with right atrial (RA) enlargement (Fig. 1a). Echocardiogram showed rheumatic tricuspid valve with severe tricuspid regurgitation (TR) due to non-coaptation of tricuspid valve leaflets (Fig. 1b). Right heart catheterization revealed elevated RA mean pressure and prominent cv wave.

Normally, jugular venous pulse is characterized by 3 positive waves—a wave (reflecting atrial systole), c wave (reflecting rise in atrial pressure owing to ascent of closed tricuspid valve during isovolumetric contraction phase) and v wave (reflecting atrial filling during late systole) and 2 descents—X descent (reflecting atrial diastole) and Y descent (reflecting passive ventricular filling during early diastole). In severe TR, X descent disappears and c wave will be fused with prominent v wave creating a prominent cv wave. His heart failure was stabilized with digoxin, loop diuretics and aldosterone antagonists.

Conflicts of interest. None declared

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