Peripheral Venous Signs of Tricuspid Regurgitation

Sir,

Peripheral venous signs of tricuspid regurgitation (TR) are not common except for the prominent systolic CV wave and rapid VY collapse. A patient is described, who had many peripheral venous signs. A 38 years male smoker presented with palpitations in the neck, easy fatigability and breathlessness and intermittent edema of one year duration. He had cyanosis and edema of lower limbs. The neck veins were full, pulsatile, without upper level, with prominent systolic CV wave and rapid VY collapse. There was a systolic movement of right pinna, side to side movement of head better appreciated by placing the hand over it and systolic thrill and murmur over the neck veins. All these signs disappeared on pressing the jugular vein above the clavicle. Ophthalmoscopic examination showed non-pulsatile, dilated and tortuous veins. His chest was barrel shaped; hyper-inflated, breath sounds were vesicular with prolonged expiration and had left para-sternal area heave, systolic thrill and a pan-systolic murmur. The murmur increased with inspiration, leg raising and right upper abdominal compression. Liver was firm, 4 cm below the costal margin, span of 16 cm with systolic pulsations. Rest of the abdominal examination was normal. His haemogram, blood biochemistry and ECG were normal. USG revealed enlarged liver and free fluid in the peritoneal cavity. CXR revealed cardiomegaly, echo and color Doppler documented TR with a normal pulmonary artery. He could not afford cardiac catheterization.

The systemic venous hypertension in TR is due to increased blood flow and manifests as raised jugular venous pressure. The intermittent systolic accentuation of it with each beat can cause throbbing pulsations in the neck and/or throat, raised jugular venous pressure with a prominent systolic CV wave and rapid VY collapse, systolic venous pulsations of the right pinna, a side to side movement of head, systolic venous thrill and murmur in neck, mid-systolic jugular or clavicular venous pistol shot sound and sometimes systolic pulsations of the eyeballs, increased tortousity of retinal veins and loss of normal spontaneous pulsations.1,2 In the lower limbs a systolic venous murmur may be heard over the varicose veins if the force of regurgitant jet is high. These signs may be altered with the development of right ventricular failure or atrial fibrillation etc.

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