



Lancisi Sign: Giant C-V Waves in Tricuspid Regurgitation

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A 78-year-old woman with rheumatic heart disease and tissue aortic valve replacement 2 years previously presented to the cardiology clinic with worsening breathlessness and weight gain. She had New York Heart Association (NYHA) class III dyspnea. Neck examination revealed large, systolic, monomorphic pulsations (Figure A; Supplemental Video 1, available online at <http://www.mayoclinicproceedings.org>). A grade 3/6 holosystolic murmur was heard, loudest at the left-lower sternal edge, which was augmented by inspiration. Examination was also notable for pulsatile hepatomegaly and pitting pedal edema.

Echocardiography was undertaken and revealed moderate-severe mitral regurgitation and severe wide-open tricuspid regurgitation, with severe right ventricular dilatation. Cardiac magnetic resonance imaging revealed a tricuspid regurgitant fraction of 60%.

In the context of tricuspid regurgitation, during right ventricular contraction, retrograde blood flows through the incompetent tricuspid valve into the right atrium and internal jugular vein, obliterating the normal x descent of the jugular venous waveform. This causes a large visible systolic neck pulsation formed by fused c and v waves: Lancisi sign.^{1,2}

She also reported increasing pruritus, and her case was notable for deranged liver biochemistry and varicose veins more prominent on the right side (Figure B; Supplemental Video 2, available online at <http://www.mayoclinicproceedings.org>). Investigations for underlying liver disease were unremarkable, and these findings were attributed to hepatic congestion due to the regurgitant tricuspid valve, causing predominantly right-sided heart failure.

Intravenous diuretic therapy was instigated. She lost several kilograms in weight and the peripheral edema decreased, which



FIGURE. A, Photograph of the neck (still image). B, Photograph showing predominantly right-side varicose veins in the lower limbs.

was associated with decreased dyspnea. Because of frailty and other comorbidities, surgical management was deemed high risk and her diuretics were up-titrated.

SUPPLEMENTAL ONLINE MATERIAL

Supplemental material can be found online at: <http://www.mayoclinicproceedings.org>. Supplemental material attached to journal articles has not been edited, and the authors take responsibility for the accuracy of all data.

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1. Srinivas SK, Bhat P, Agrawal N, Manjunath CN. Lancisi sign. *BMJ Case Rep.* 2013;2013:bcr2013200023.
2. Mansoor AM, Mansoor SE. Images in clinical medicine: Lancisi's sign. *N Engl J Med.* 2016;374(2):e2.