

# Left ventricular false tendon in a patient with coarctation of aorta

Aprateem Mukherjee <sup>1</sup>, Niraj Nirmal Pandey <sup>1</sup>, Sanjeev Kumar,<sup>1</sup>  
Sivasubramanian Ramakrishnan<sup>2</sup>

<sup>1</sup>Cardiovascular Radiology and Endovascular Interventions, All India Institute of Medical Sciences, New Delhi, India

<sup>2</sup>Cardiology, All India Institute of Medical Sciences, New Delhi, India

## Correspondence to

Dr Sanjeev Kumar;  
sanjeevradio@gmail.com

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## DESCRIPTION

A boy of preschool age, with a suspicion of aortic arch abnormality on transthoracic echocardiography, underwent CT angiography for detailed evaluation of cardiovascular morphology. CT angiography revealed a postductal coarctation with concentric left ventricular hypertrophy. Along from the left ventricular myocardium being hypertrabeculated, a thin chord-like structure was noted traversing the left ventricular cavity, extending from the interventricular septum to the left ventricular-free wall ([figure 1](#)).

Left ventricular false tendons or left ventricular bands are tissue filaments which cross the left ventricular cavity.<sup>1</sup> They can be found in normal healthy individuals and may be incidentally detected on transthoracic or transoesophageal echocardiograms done for other indications. Although they are usually asymptomatic, these ventricular bands can be a source of premature ventricular contractions and pre-excitation as they may contain varying amounts of myocardial tissue, fibrous tissue and blood vessels.<sup>2</sup> Thicker bands may also result in obstruction to the left ventricular outflow or cause entrapment of the pigtail catheter during left ventriculography. They may mimic

## Learning points

- ▶ Left ventricular false tendons or bands are tissue filaments, which cross the left ventricular cavity and are usually asymptomatic.
- ▶ Left ventricular false tendons can be a source of premature ventricular contractions and pre-excitation as they may contain varying amounts of myocardial tissue, fibrous tissue and blood vessels.

thrombus or flail chordae on imaging studies, or even mimic a moderator band in neonates. The presence of these bands, when incidentally detected on imaging in a patient with a structural heart disease planned for repair, should be communicated to the surgeons as these bands may harbour conducting system or vascular branches within them.

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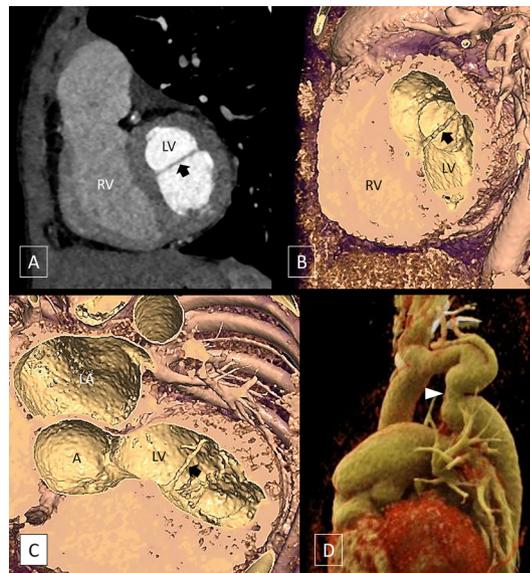
Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

## ORCID iDs

Aprateem Mukherjee <http://orcid.org/0000-0002-8881-6332>  
Niraj Nirmal Pandey <http://orcid.org/0000-0001-6786-8304>

## REFERENCES

- 1 Philip S, Cherian KM, Wu M-H, *et al*. Left ventricular false tendons: echocardiographic, morphologic, and histopathologic studies and review of the literature. *Pediatr Neonatol* 2011;52:279–86.
- 2 Suwa M, Hirota Y, Nagao H, *et al*. Incidence of the coexistence of left ventricular false tendons and premature ventricular contractions in apparently healthy subjects. *Circulation* 1984;70:793–8.



**Figure 1** Oblique sagittal image (A) and virtual dissection images (B, C) demonstrate a thin chord-like structure (thick black arrow) traversing the left ventricular (LV) cavity, extending from the interventricular septum to the left ventricular free wall. Volume rendered image (D) reveals postductal coarctation (white arrowhead) with prestenotic and poststenotic dilatation. A, aorta; LA, left atrium; RV, right ventricle.



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