

Clinical Image

Title: A Case of LV False Tendon with Ventricular Tachycardia

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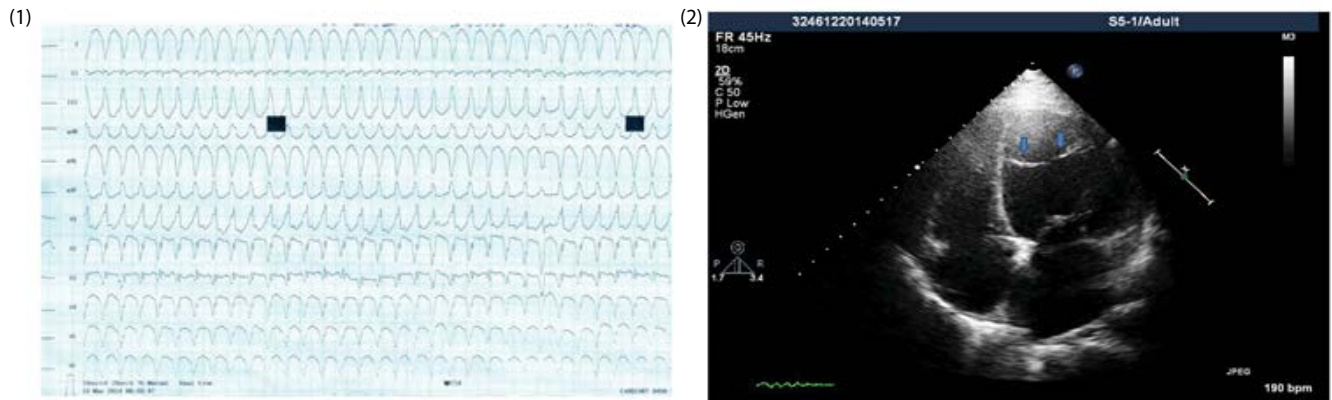


Figure 1: Electrocardiogram showing ventricular tachycardia with RBBB morphology.

Figure 2: Showing apical 4 chamber view with LV false tendon arising from LV free wall to Septum.

Left ventricular (LV) false tendons were first described in 1893 by the British anatomist and surgeon Sir William Turner [1]. Turner proposed that they reduce the severity of functional mitral regurgitation by stabilizing the position of the papillary muscles as the left ventricle enlarges and promoting membrane formation in discrete subaortic stenosis. LV false tendons are found in about half of hearts examined at autopsy and occur with equal frequency in normal hearts and in those with congenital malformations [2]. Autopsy and surgical series have demonstrated a slight male preponderance. False tendons containing conduction tissue have been identified as substrates of intracavitary ventricular tachycardia [3] and have been successfully ablated.

We report a 48 years old lady presented to the emergency department with history of sudden onset palpitations associated with fatigue. Twelve leads electrocardiogram was suggestive of ventricular tachycardia with right bundle branch block (RBBB) morphology (Figure 1), Patient was hemodynamically unstable so electrically cardioverted. Subsequently 2D transthoracic echocardiogram revealed dilated left ventricle with moderate LV dysfunction and showing false tendon attached from left ventricular free wall to intraventricular septum (Figure 2), which could be the focus of ventricular tachycardia in our patient.

References

1. Turner WA (1893) human heart with moderator bands in the left ventricle. *J Anat Physiol.* 27: 19-20
2. Philip S, Cherian KM, Wu M, Lue H (2001) Left ventricular false tendons: echocardiographic, morphologic, and histopathologic studies and review of the literature. *Pediatr Neonatol.* 52: 279-286
3. Thakur RK, Klein GJ, Sivram CA, Zardini M, Schleinkofer, et al. (1996) Anatomic substrate for idiopathic left ventricular tachycardia. *Circulation.* 93: 497-501