

- Spirito P, Maron BJ, Bonow RO, Epstein SE: Occurrence and significance of progressive left ventricular wall thinning and relative cavity dilatation in hypertrophic cardiomyopathy. *Am J Cardiol* 1987;59:123–129
- Varnava AM, Elliott PM, Baboonian C, Davison F, Davies MJ, McKenna WJ: Hypertrophic cardiomyopathy. Histopathological features of sudden death in cardiac troponin T disease. *Circulation* 2001;104:1380–1384
- Tardiff JC, Factor SM, Tompkins BD, Hewett TE, Palmer BM, Moore RL, Schwartz S, Robbins J, Leinwand LA: A truncated cardiac troponin T molecule in transgenic mice suggests multiple cellular mechanisms for familial hypertrophic cardiomyopathy. *J Clin Invest* 1998;101:2800–2811
- Oberst L, Zhao G, Park JT, Brugada R, Michael LH, Entman ML, Roberts R, Marian AJ: Dominant-negative effect of a mutant cardiac troponin T on cardiac structure and function in transgenic mice. *J Clin Invest* 1998;102:1498–1505
- Tardiff JC, Hewett TE, Palmer BM, Olsson C, Factor SM, Moore RL, Robbins J, Leinwand LA: Cardiac troponin T mutations result in allele-specific phenotypes in a mouse model for hypertrophic cardiomyopathy. *J Clin Invest* 1999;104:469–481
- Frey N, Franz WM, Gloeckner K, Degenhardt M, Muller M, Muller O, Merz H, Katus HA: Transgenic rat heart expressing a human cardiac troponin T deletion reveal diastolic dysfunction and ventricular arrhythmias. *Cardiovasc Res* 2000;47:254–264
- Marian AJ, Zhao G, Seta Y, Roberts R, Yu Q: Expression of a mutant (Arg92Gln) human cardiac troponin T, known to cause hypertrophic cardiomyopathy, impairs adult cardiac myocyte contractility. *Circ Res* 1997;81:76–85
- Tazelaar HD, Billingham ME: The surgical pathology of hypertrophic cardiomyopathy. *Arch Pathol Lab Med* 1987;111:257–260

Clin. Cardiol. 26, 539 (2003)

Images in Cardiology: Focal Hypertrophic Cardiomyopathy Simulating a Mass

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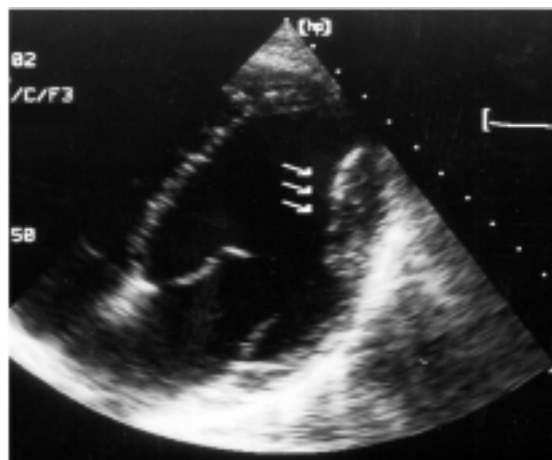


FIG. 1 Apical four-chamber-view echocardiogram. Distribution of hypertrophy is virtually confined to the middle and apical segments of lateral free wall (LFW) in the left ventricle (arrows). Note that the anterior ventricular septum and basal segment of LFW are of normal thickness.

A 24-year-old man referred for preoperative cardiac evaluation related no cardiovascular symptoms. Family history included two hypertrophic cardiomyopathy-related sudden deaths at ages 35 and 48 years. Physical examination was normal. The 12-lead electrocardiogram showed T-wave inversion in precordial leads V₄ to V₆. Transthoracic echocardiogram demonstrated hypertrophy simulating a mass virtually confined to the lateral free wall (LFW) in the left ventricle (Fig. 1). No clinical suspicion of neoplasm existed. Magnetic resonance imaging with tagging technique was performed

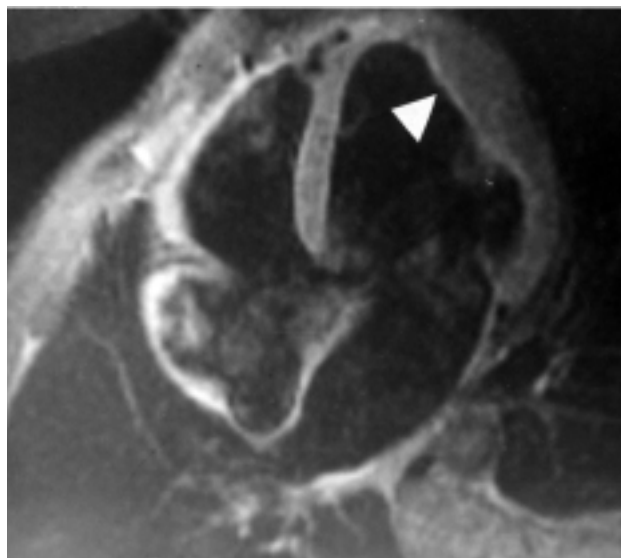


FIG. 2 Magnetic resonance image in the coronal orientation demonstrates a hypertrophic region in the LFW in the left ventricle (arrow), with normal myocardial segment shortening.

and confirmed a hypertrophic region in the LFW, isointense to adjacent myocardium, and normal myocardial segment shortening (Fig. 2).

Reference

Klues HM, Schiffers A, Maron BJ: Phenotypic spectrum and patterns of left ventricular hypertrophy in hypertrophic cardiomyopathy: Morphologic observations and significance as assessed by two-dimensional echocardiography in 600 patients. *J Am Coll Cardiol* 1995;26:1699–1708