

CARDIAC RHABDOMYOMA IN A 53-YEAR-OLD MALE

U. ÖZERGİN, MD,
K. DURGUT, MD,
N. GÖRMÜŞ, MD,
M. ÖZÜLKÜ, MD

In this article, a 53-year-old male patient with cardiac rhabdomyoma is reported. The tumor was excised from the right ventricle with the aid of cardiopulmonary bypass. Cardiac rhabdomyomas are generally seen before the third decade, so this case was found worth reporting because of its rareness.

Key words : Cardiac tumors, cardiac rhabdomyoma, cardiac myxoma

From:

Department of
Cardiovascular Surgery,
School of Medicine,
Selçuk University, Konya,
Türkiye

P rimary cardiac tumors are very rare. Cardiac rhabdomyoma occurs more frequently in infancy, and is quite rare over the third decade of life. Rhabdomyomas are actually myocardial hamartomas rather than true neoplasms (4). They are strongly associated with tuberous sclerosis which is hereditary, characterized by hamartomas in several organs, epilepsy, mental deficiency and adenoma sebaceum.

CASE REPORT

A 53-year-old male patient was admitted to hospital with the complaint of palpitation. He did not have any abnormal findings on physical examination. Routine laboratory tests were normal. Two dimensional echocardiogram revealed a right ventricular mass sized 22x16 mm (Figure 1). He was operated on for having a suspected right ventricular myxoma. The mass was protruding into the pulmonary artery and occluding it almost thoroughly. It was excised from the posterior wall of the right ventricle by a right atrial incision and the retraction of the tricuspid valve with the aid of cardiopulmonary bypass. Macroscopically, the tumor was like a fibromuscular tissue, well-capsulated, sized 21x 24x 26 mm and was attached to the posterior wall of the right ventricle with a pedicle. It was reported to be a cardiac rhabdomyoma by pathologic examination (Figure2).

DISCUSSION

Cardiac rhabdomyomas are histologically specific cardiac tumors, which tend particularly to occur in patients with tuberous sclerosis.

**Address for
reprints:**

Dr. Ufuk Özergin
Selçuk Üniversitesi Tıp
Fakültesi
Göğüs Kalp Damar
Cerrahisi Kliniği
42080 Konya, Türkiye
Tel:+90 332 3232600 /1708
Fax:+90 332 3232641
e-mail:
ozergin@selcuk.edu.tr



Figure 1. A right ventricular mass seen in 2-D echocardiogram.

They are benign, yellow-gray tumors and their microscopic characteristic is spider cell which contains a central cytoplasmic mass suspended by fine fibrillar processes radiating to the periphery. Whether rhabdomyomas are true neoplasms or myocardial hamartomas is controversial, but they are generally considered as hamartomas (4, 5).

Cardiac rhabdomyomas are the most common primary tumors in children (1, 2). The presentation is frequently at birth or in the first few days of life. Occasionally, the tumor is discovered after the diagnosis of tuberous sclerosis (6). It is difficult to explain the occurrence of the tumor in a 53-year-old patient. Probably it was present in childhood and was ignored for years.

The diagnosis can often be made on the basis of the clinical features. Symptoms are rarely

seen; they are directly referable to tumor size and localization. Symptoms may be caused by cardiac obstructive phenomena, arrhythmias, atrioventricular block and pericardial effusion (7).

Ventricular outlet gradients, angiographic abnormalities, echocardiography and magnetic resonance imaging (3) are sufficient for diagnosis, and therefore the tumor can be successfully resected. In the review of 36 patients with cardiac rhabdomyoma according to necropsy, Fenoglio and co-workers (5) found that 92% had multiple lesions; left ventricle was involved in 100% , followed by right ventricle (81%) , right atrium (14%) , left atrium (8%), and both atria (80%).

Rhabdomyomas usually protrude into the left or right ventricular cavity, therefore their resection is performed with the aid of

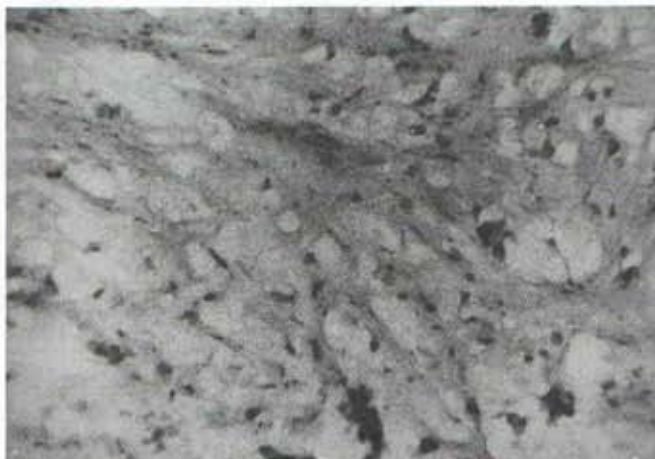


Figure 2: Histologic examination of rhabdomyoma showing bizarre vacuolated cells.

cardiopulmonary bypass. In the operation, ventricular incision may be needed for effective surgical approach (8). Excision is limited to the area of the tumor. Multiplicity of tumors does not contraindicate the surgery, as these tumors appear to have little capacity for further growth. Present information has been limited to isolated case reports since long term results are not sufficiently available.

REFERENCES

1. Arciniegas E, Hakimi M, Frooki Z, Greene EW. Primary cardiac tumors in children. *J Thorac Surg* 1980;79:582-4.
2. Bini RM, Westaby S, Bargeron LM, Pacifico AD, Kirklin JW. Investigation and management of primary cardiac tumors in infants and children. *J Am Coll Cardiol* 1983;2:351-6.
3. Boxer RA, LaCorte MA, Singh S. Diagnosis of cardiac tumors in infants by magnetic resonance imaging. *J Am Cardiol* 1985;56:831-5.
4. Bruni C, Prioleau PG, Ivey HN, Nolan SP. New fine structural features of cardiac rhabdomyoma : A case report. *Cancer* 1980;46:2068-73.
5. Fenoglio JJ, McAllister HA, Ferrans VJ. Cardiac rhabdomyoma, a clinico-pathologic and electronmicroscopic study. *Am J Cardiol* 1976;38:241-6.
6. Guereta LG, Burgueros M, Elorza MD. Cardiac rhabdomyoma presenting at fatal hydrops. *Pediatr. Cardiol* 1986;7:171-3.
7. Howenitz EP, Teske DW, Qualman SJ, et al. Pedunculated left ventricular rhabdomyoma. *Ann Thorac Surg* 1986; 41:443-5.
8. Kilman JW, Craener J, Hosier DM. Replacement of entire right atrial wall in an infant with a cardiac rhabdomyoma. *J Pediatr Surg* 1973;8:317-20.