Large Lobulated Rhabdomyoma Causing Severe Right Ventricular Outflow Obstruction in A Newborn: Original Image

Yenidoğanda Ciddi Sağ Ventrikül Çıkış Yolu Obstrüksiyonu Yapan Büyük Lobüllü Rabdomiyom

Yılmaz YOZGAT,[a]
Önder DOKSÖZ,[a]
Rahmi ÖZDEMİR,[a]
Emine AZAK,[b]
Timur MEŞE[a]

[a]Clinic of Pediatric Cardiology, Dr. Behçet Uz Children Diseases and Surgery Training and Research Hospital, İzmir
[b]Clinic of Pediatric Cardiology, Denizli State Hospital, Denizli

Geliş Tarihi/*Received:* 22.10.2012
Kabul Tarihi/*Accepted:* 20.12.2012

Yazışma Adresi/*Correspondence:*
Yılmaz YOZGAT
Dr.Behçet Uz Children Diseases and Surgery Training and Research Hospital, Clinic of Pediatric Cardiology, İzmir, TÜRKİYE/TURKEY
yozgatyilmaz@yahoo.com

Key Words: *Rhabdomyoma; ventricular outflow obstruction*

Anahtar Kelimeler: *Rabdomiyom; ventriküler çıkış tıkanıklığı*

Turkiye Klinikleri J Cardiovasc Sci 2014;26(1):67-8

The male neonate was born at 38 weeks of gestation. Apgar scores were 6, 8, and 10 at 1, 5, and 10 minute. Physical examination revealed blood pressure of 80/50 mmHg, pulse of 130/min, and oxygen saturation was 99%. The electrocardiogram was normal. There was 4/6° midsystolic ejection murmur in pulmonary area with a trill in left upper sternal area. Chest X-ray revealed normal findings.

Echocardiography was performed for the patient. Apical four-chamber view of the heart, a large number of well-circumscribed, hyper-echogenic nodules were observed in interventricular septum and left ventricular free wall (Figure 1). In subcostal long-axis and parasternal short-axis imaging, showed a large mass with a two-lobed, causing severe stenosis in the right ventricular outflow tract, originating from infundibular septum was observed (Figure 2, 3, Video 1, 2, 3). Depending on the compression of the mass, 80 mmHg gradient was obtained by CW Doppler evaluation in the right ventricular outflow tract (Figure 4).

The most common tumors in newborns and infants are rhabdomyomas. The echocardiographic characteristics of cardiac rhabdomyomas are highly echogenic, multiple, well-circumscribed intramural or intracavitary nodules occurring anywhere within the heart. [1,2] Rhabdomyomas have been known to regress without surgical intervention. Surgical intervention is required when cardiac outflow obstruction causing significant hemodynamic deterioration.[1]

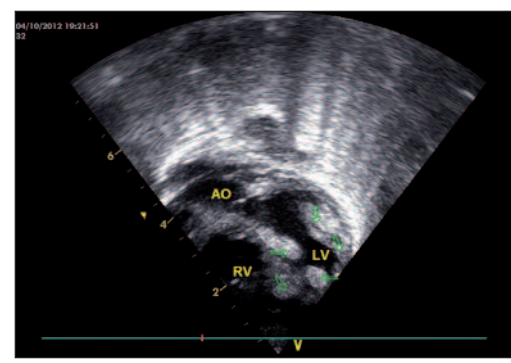
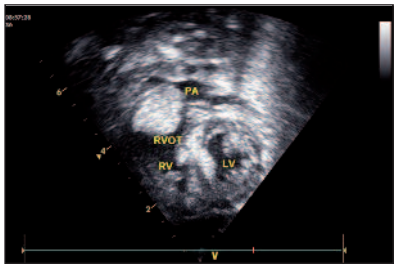


FIGURE 1: Echocardiography showing multiple hyperechogenic nodules within the interventricular septum, the free wall of the left ventricle.
Ao: Aorta; RV: Right ventricle; LV: Left ventricle.



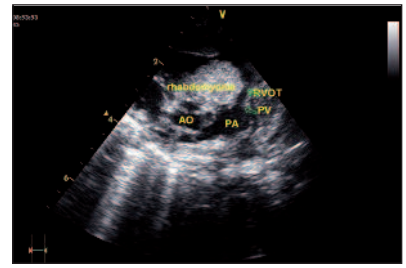


FIGURE 2, 3: Echocardiography showing large lobulated hyperechogenic mass within the infundibular septum protruding to the RVOT and leading significant flow obstruction.
RVOT: Right ventricular outflow tract.

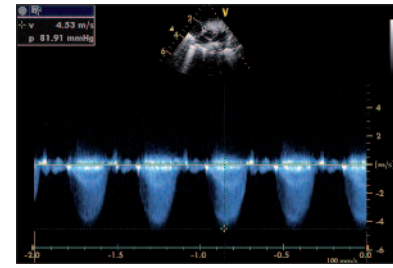
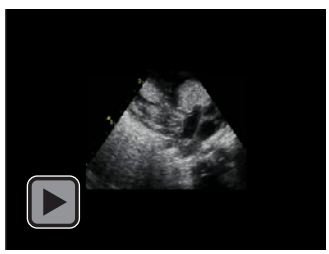


FIGURE 4: Continuous wave Doppler measurement from the parasternal short-axis position showing a 80 mmHg pressure gradient along the RVOT.

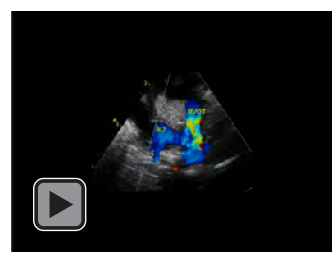
The newborn didn't have any sign of hemodynamic deterioration. A decision of surgical intervention was not made for the baby who was discussed in pediatric cardiology, cardiovascular surgery counsil and he was decided to be followed up with echocardiography.

REFERENCES

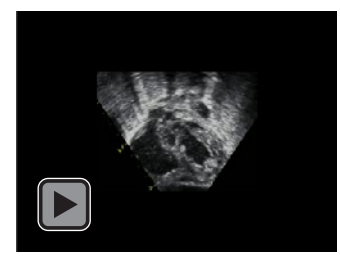
1. Marx GR, Moran AM. Cardiac tumors. In: Allen HD, ed. Moss and Adams' Heart Disease in Infants, Children, and Adolescents. 7thed. Philadelphia: Lippincott Williams & Wilkins; 2008. p. 1479-95.
2. Suma S, Polat P. [Cardiac Masses]. Turkiye Klinikleri J Radiol-Special Topics 2011;4(3):76-83.



Video 1



Video 2



Video 3