Case Report

Rare case of biventricular myxomas with right ventricular outflow tract obstruction in a neonate: A case report

Golhar S[1], Thute S[2*], Chaurasiya S[3], Siddharth K[4]

[1]Associate Professor, [2,3]Assistant Professor, [4]Junior Resident, Department of Pediatrics, Government Medical College, Nagpur, Maharashtra, INDIA.
Email: sandeepthute@gmail.com

Abstract

Introduction: Primary cardiac tumors are rare during neonatal age group. Myxomas originating from right ventricle and biventricular myxomas are even rare. **Case presentation:** Here we describe a case of a neonate who was admitted in NICU for respiratory distress and sepsis with congestive cardiac failure. 2D ECHO done in this baby revealed biventricular myxomas with right ventricular outflow tract obstruction. Conclusion: Biventricular cardiac myxomas are rare in the neonatal age group and right ventricular outflow tract obstruction can present unusual diagnostic and therapeutic challenges.

Keywords: neonatal cardiac myxoma, right ventricular outflow tract obstruction.

[*]**Address for Correspondence:**
Dr. Thute S, Associate Professor, Department of Pediatrics, Government Medical College, Nagpur, Maharashtra, INDIA.
Email: sandeepthute@gmail.com

Received Date: 26/10/2015 Revised Date: 12/11/2015 Accepted Date: 10/12/2015

Access this article online

Quick Response Code:

Website: www.statperson.com

DOI: 16 February 2016

INTRODUCTION

Cardiac myxoma is a rare cause of heart failure in infancy and childhood. The prevalence of cardiac myxomas varies between 0.0011% to 0.19% in autopsy studies.[1] Only 5% of these are found in right ventricle.[2] Approximately 80% of myxomas are localized in the left atrium, 75% of which involve the interatrial septum. Between 7% and 20% are found in the right atrium; the rest are either biatrial, in the right ventricle, or in the left ventricle.[3,4,5] These can appear sporadically or as a part of Carney syndrome where they are associated with endocrine neoplasm and spotty hyperpigmentation.[6]

CASE REPORT

A day 1 old neonate was admitted in NICU in view of prematurity with very low birth weight (1.3 kg). The neonate was small for gestational age and had respiratory distress at birth (silverman Anderson score of 7) for which he was put on non invasive CPAP. In view of resource limited setting, surfactant therapy could not be given. Septic screen was positive on day 3 of life and the baby was treated accordingly. On day 6 of life the neonate developed increasing respiratory distress with repeated episodes of apnea and was ventilated for the same. Along with this, on day 7 of life the baby showed signs of congestive cardiac failure in the form of tachycardia, palpable liver (span of 7 cm) and systolic murmur for which diuretics and vasoactive agents (dopamine, dobutamine) were started. The patient was then extubated on day 9 of life after favourable blood gas analysis reports. 2D ECHO was done which was suggestive of biventricular myxomas with good biventricular function. There were 3x4,5x4,4x4 mm masses arising from the left ventricle and a 3x4 mm mass arising from the right ventricular wall which was impinging on the pulmonary valve leading to moderate pulmonary stenosis.(Figure 1)The patient had a total 2 months duration of NICU stay following which the baby was discharged.

How to site this article: Golhar S, Thute S, Chaurasiya S, Siddharth K. Rare case of biventricular myxomas with right ventricular outflow tract obstruction in a neonate: A case report. *International Journal of Recent Trends in Science and Technology*. February 2016; 18(1): 195-196. http://www.statperson.com (accessed 16 February 2016).

DISCUSSION

Primary cardiac masses are a rare presentation and most common being myxomas.[1] Biventricular myxomas are extremely rare. Till date, there are many case reports of ventricular myxomas in adults and older children but such reports in neonatal age group is scarce. Right ventricularmyxomas may cause obstruction of the right ventricular outflow tract which may lead to syncope, pulmonary embolism or sudden death. It is also a rare cause of right heart failure.[8,9] The gold standard non invasive diagnostic modality for such tumors is trans thoracic or trans esophageal echocardiogram. It enables localization of the tumor, size, shape, mobility as well as the risk of right ventricular outflow tract obstruction and the tumor attachment. Cardiac CT or cardiac MRI offers additional information about the structure and function of the cardiac tumors before surgical resection.[7]

CONCLUSION

Neonatal cases of biventricular myxoma with right ventricular outflow tract obstruction are extremely rare. It is a rare cause of right sided congestive cardiac failure.

REFERENCES

1. Gopal AS, Stathopoulos JA, Arora N, Banerjee S, Messineo F: Differential diagnosis of intracavitary tumors obstructing the right ventricular outflow tract. J Am Soc Echocardiogr 2001, 14(9):937–940.
2. Hirota J, Akiyama K, Taniyasu N, Maisawa K, Kobayashi Y, Sakamoto N,Komatsu N: Injury to the tricuspid valve and membranous atrioventricular septum caused by huge calcified right ventricular myxoma: report of a case. Circ J 2004, 68(8):799–801.
3. Castells E, Ferran V, Octavio de Toledo MC, *et al*. Cardiac myxomas: surgical treatment, long-term results and recurrence. J CardiovascSurg (Torino) 1993; 34:49–53.
4. Chakfé N, Kretz JG, Valentin P, *et al*. Clinical presentation and treatment options for mitral valve myxoma. Ann ThoracSurg 1997; 64:872–877.
5. Bjessmo S, Ivert T. Cardiac myxoma: 40 years' experience in 63 patients. Ann ThoracSurg 1997; 63:697–700.
6. Cilliers A M, van Unen H, Lala S, Vanderdonck KH, Hartman E. Massive biatrialmyxomas in a child. PediatrCardiol 1999; 20:150–151.
7. Lacey BW, Lin A: Radiologic evaluation of right ventricular outflow tractmyxomas. Tex Heart Inst J 2013, 40(1):68–70.
8. Gribaa *et al*.: Right ventricular myxoma obstructing the right ventricular outflow tract: a case report. Journal of Medical Case Reports 2014 8:435.
9. Vassiliadis N, Vassiliadis K, Karkavelas G. Sudden death due to cardiac myxoma. Med Sci Law 1997; 37:76–78.

Source of Support: None Declared
Conflict of Interest: None Declared