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CONTENTS

Editorial

- Formalin in Food - An Emerging Public Health Problem 2
Prof. Dr. Md. Azfarul Habib

Information for authors

3

Original Articles

- Comparative Study of Standard Culture Technique and Simple Non-culture Methods for Rapid Laboratory Diagnosis of Urinary Tract Infections in A Tertiary Care Hospital 5
Khan A H, Zaman M K, Hossain M S, Rahman M A, Samad M A.
- Identification of Enterotoxigenic Escherichia Coli (ETEC) and Their Genes: Est, Heat-stable Toxin and Eit, Heat-labile Toxin Using Multiplex PCR Technology in A Tertiary Care Hospital 9
Kabir M R, Hossain M A, Alam M M, Paul S K, Begum Z, Yesmin T.
- Klebsiella Spp. Infection: An Emerging Health Issue 14
Yasmin T, Khan A H, Mowla G, Siddiqui M Z R, Kabir M R, Haque N, Maua J.
- Association of Serum Magnesium Level and Development of Arrhythmias in Acute Myocardial Infarction 19
Islam M K, Islam M M, Ahsan R, Mamun M A A R.
- Prevalence of Ciprofloxacin Resistance among Gram-negative Bacilli Isolated from Urinary Tract Infection Specimens at A Specialized Hospital in Riyadh, Saudi Arabia 25
Hossain M A, Mohal S.
- Frequency of Silent Ischemic Heart Disease in Type 2 Diabetic Patients 30
Islam M K, Islam M M, Ahsan R, Montasir A A, Mahmud M A A R.
- A Study of Head Injury by Railway Accident in Bogra District 33
Islam K M S, Habib M A.

Case Reports

- Primary Inoculation Tuberculosis following Pricking Injury Presenting as Cold Abscess : Report of 4 Cases. 36
Mazid M A, Rahim M M, Sultana N, Habib M A, Methela A T.
- General Anaesthesia for Patey's Mastectomy with Moderate Heart Failure and Bradycardia – A Case Report. 40
Jahan N, Rahman M A, Mollah M A W, Mondol C K.
- Fetal Cardiac Rhabdomyoma - A Rare Case Report 42
Mondal S R, Sarkar S K, Pervin F.

CASE REPORT**FETAL CARDIAC RHABDOMYOMA - A RARE CASE REPORT**MONDAL S R¹, SARKAR S K², PERVIN F³.

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ABSTRACT

Fetal cardiac rhabdomyoma is very rare; despite the fact that many cases and series have been reported. Improvements in diagnostic techniques, have made early detection of it. The objective of this case report is to create awareness among the patients regarding early sonographical detection and proper management of cardiac rhabdomyoma. In a study it was found that at ultrasonography, cardiac rhabdomyomas are detected by the end of the second gestational trimester either as a single or multiple, well delimited, solid, homogeneous, hyperrefringent mass with varied dimensions. The early detection of these tumors allows a specialized prenatal follow-up and, institution of appropriate therapeutics, thus contributing for reducing the perinatal morbimortality.

Key words : Rhabdomyoma, Cardiac tumor, Ultrasonography.

INTRODUCTION

Cardiac tumours in infants & children are extremely rare. The prevalence, reported from autopsy studies of patients of all ages, varies from 0.0017 - 0.28%¹. Among fetal cardiac tumour rhabdomyoma is most common. They account for over 60% of all primary cardiac tumour. Rhabdomyomas are usually detected before birth or during the first year of life². These tumours are anomalous, benign proliferation of tissue displaying typical spider cells on histopathology. The rhabdomyoma may occur as a single lesion or as multiple lesions usually located within the ventricle. Clinical presentation of this tumour is determined by the tumor size and number and expansion of the malignancy has resulted in cardiac blood-flow obstruction. Management dependent on presence or absence of cardiac outflow obstruction. Most regress after birth. Careful evaluation for the presence of tuberous sclerosis is indicated for patient and family³.

CASE REPORT

A 20 years old pregnant woman attended the department of Radiology and Imaging of TMSS medical college and Rafatullah Community Hospital, Thengamara, Bogra with the history of amenorrhoea for 37 weeks 1 day. She was a primigravida and she had no history of abortion or IUD. On USG study of pregnancy profile, it was found, a homogenous echogenic soft tissue mass involving left ventricular myocardium and interventricular septum of the fetal heart. Fetal heart rate was regular and 142 bpm. No other congenital anomaly was found. Presence of cardiac mass was further confirmed by prenatal echocardiography as fetal cardiac rhabdomyoma.

DISCUSSION

Cardiac tumors constitute a rare condition, affecting 0.17-28/10,000 of the general population. Rhabdomyomas represent the most frequently found type of tumor in the prenatal period⁴. It is most often found on the lower chambers of the heart (the ventricles) and less frequently

on the upper chambers (the atria). Often, more than one tumor will be present⁵. According to their localization, size and number, these tumors may lead to blood flow obstruction and alteration of the ventricular ejection fraction, causing arrhythmia, congestive heart failure, pericardial effusion, cardiomegaly, hydrops and fetal death⁴. In a study, Pipitone S et al found nine cases of fetal cardiac rhabdomyoma in ten years study period which was firstly diagnosed in antenatal ultrasonography and then confirmed in antenatal echocardiography. In another study, Filho HAG et al found a fetus with cardiac malformation with arrhythmia diagnosed by routine sonographic study. Then it was confirmed as a case of fetal cardiac rhabdomyoma by echocardiography. By ultrasound, they are multiple or single, homogenous circumscribed masses that are usually slightly more echogenic than the myocardium itself⁶. Rhabdomyoma have a tendency to regress, but their prognosis is guarded due to very frequent association with arrhythmias and tuberous sclerosis. During prenatal counseling, it is of utmost importance to inform the future parents of the virtually constant perspective of the disease⁵. The incidence of cardiac rhabdomyoma in patient with tuberous sclerosis is 30% to 50%⁸.

The mass may lie within the myocardium or it may be pedunculated and obstructive⁹. It was found in a study that the incidence of cardiac symptoms and TSC was not statistically different between the prenatal and postnatal diagnosis groups¹⁰.

CONCLUSION

Fetal cardiac tumors can be detected by prenatal ultrasonography with careful scan. Because sonography is a cost-effective test. Every pregnant woman have to prenatal ultrasonography. However, differential diagnosis is important as this will affect prognosis and subsequent management.



Fig : Cardiac Rhabdomyoma involving Lt. ventricle and intraventricular septum

REFERENCES

1. Wang JN et al, Cardiac tumours in infants and children. *J. Acta Paediatr Taiwan*. 2003 Jul; Aug; 44(4): 215-9.
2. Jones DJ and Weerakkody DY et al. Fetal cardiac tumour. Pubmed, US national library of medicine of national institute of health. 2010; Oct; 30(10):941-49.
3. William JM, Daniel WG, Guillermo F. Cardiac rhabdomyoma. Department of Obstetrics and Gynecology, Division of maternal and fetal medicine, University of Illinois at Chicago. *Ultrasound Med*. 1991; 10:697-9.
4. Filho HAG et al. Prenatal sonographic diagnosis of fetal cardiac rhabdomyoma. A case report. *J Am coll cardiol* 1995; 26: 516-20.
5. Zhou QC. et al. Prenatal echocardiographic differential diagnosis of fetal cardiac tumour. *J Clin Ultrasound*. 2004; Feb; 23(2).
6. Hornberger L. K., Jaeggi E. T., Trines J. The fetal Heart. In: Rumack C M., Wilsons S R, Charbonem J. W. editors. *DIAGNOSTIC ULTRASOUND*. 4th Edi. Elsevier; 2011:1357.
7. Pipitone S. et al. Cardiac Rhabdomyoma in intrauterine life: Clinical feature and natural history. A case series and review of published reports. *Italian heart Journal*. 2002; 3(1): 48-52.
8. Boderick L.S., Computed tomography of the heart & pericardium. In *CT and MR Imaging of the Whole Body* by Haaga J.R., 4th edi, 2002; volume 1-B; P10075.
9. Callaway M & Wide P. Acquired heart disease II ! Non - Invasive imaging in test book of Radiology & Imaging by Sutton D. , 7th edi, 2002; P 337.
10. Bader RS et al. Fetal rhabdomyoma: prenatal diagnosis, clinical out come and incidence of associated tuberous sclerosis complex. *J Pediatr*. 2003; Nov; 243(5): 620 - 4.