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CASE STUDY

A Rare Congenital Cardiac Anomaly Diagnosed by Echocardiography in A Full-Term Pregnant Woman

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ABSTRACT
As a highly rare congenital defect, cor triatriatum sinister represents only 0.1% of congenital cardiac anomalies.1. Depending on the degree of obstruction and the accompanying symptoms, cor triatriatum can be diagnosed at any time. Hereby describing a case of cor triatriatum diagnosed during the third trimester of pregnancy and its successful management until postpartum._Cor triatriatum can be diagnosed at any age, depending on the severity of the obstruction and concomitant symptoms. In symptomatic patients, treatment consists of a resection of the diaphragm and correction of the associated congenital heart defects. Although cor triatriatum can be an isolated lesion, it is associated with other congenital cardiovascular anomalies.
Keywords: cor triatriatum, Congenital Cardiac Anomaly, ECG

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INTRODUCTION

A 22-year-old female patient attended to our OP for routine antenatal cardiac evaluation, with no significant history of cardiac symptoms. On physical examination, apex beat was felt at left 5th intercostal space along the midclavicular line. There was a 2/6 systolic murmur in the left second intercostal on cardiac auscultation and Blood pressure was 100/60 mmHg, pulse was 90 / min and respiratory rate was 22 / min. Electrocardiography showed normal sinus rhythm. In transthoracic echocardiography, Ejection fraction was normal and left atrium was slightly enlarged. Transthoracic echocardiography revealed a fibromuscular membrane dividing the left atrium in two, compatible with the cor triatriatum sinister, was observed in the left atrium (Figure 1). Then, shunt passage was observed by means of transmembrane fenestration using the Doppler echocardiographic method with no gradient across the shunt. Cardiac magnetic resonance imaging and multi slice computed tomography were recommended to determine additional congenital anomalies and to determine the need for surgery after childbirth. The patient who delivered through normal vaginal mode, had an uneventful postnatal period and was discharged on postnatal day [1-3].

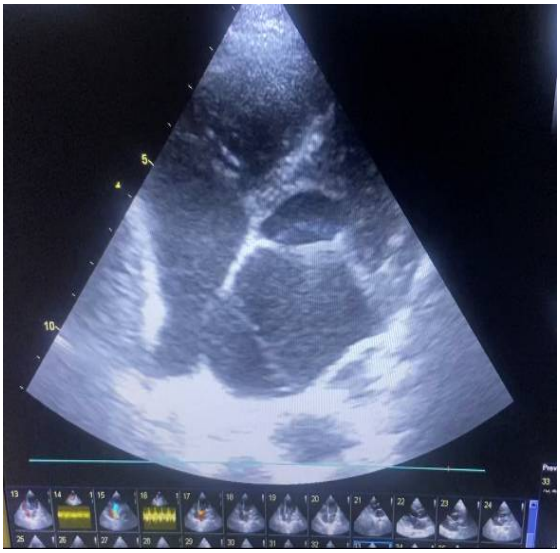

Figure 1: Apical 4 chamber view showing cortriatriatum.

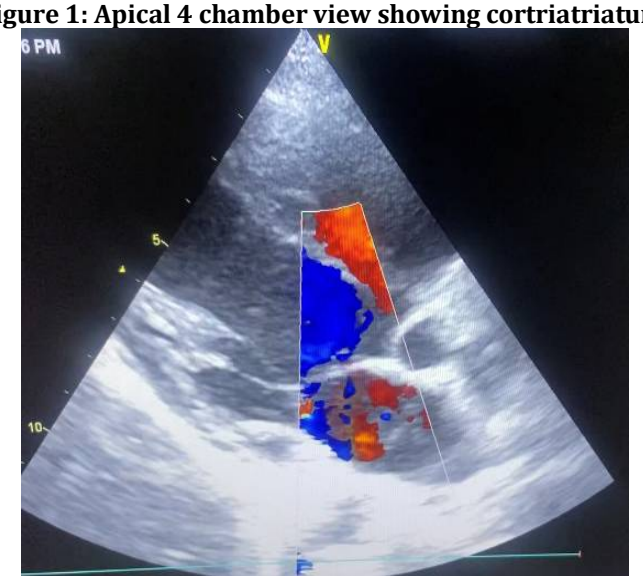

Figure 2: parasternal long axis showing cortriatriatum

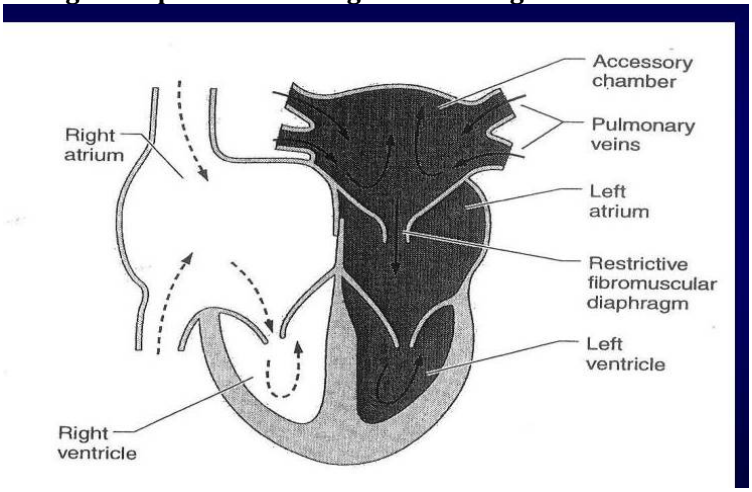

Figure 3: schematic representation

DISCUSSION

Triatrial heart is a rare congenital abnormality, reported by Jeiger at the autopsy, in 0.4% of patients with congenital heart disease, and found in less than 0.1% of clinically diagnosed cardiopathies . Though it was

first described by Church in 1868, as a left atrium divided by an abnormal septum, the name “cor triatriatum” was given by Borst in 1905 .2
Medical treatment is directed toward lowering the heart rate (b-adrenergic blockers) and blood volume (diuretics). If atrial fibrillation develops, anticoagulant therapy is needed to reduce the risk of embolic events.33 The diagnosis of acute heart failure and severe pulmonary hypertension during pregnancy may mandate emergent operation.An open surgical approach using cardiopulmonary bypass is preferred over rarely performed percutaneous interventions for treatment of this type of cardiac anomaly. The role of percutaneous balloon dilation in managing this condition remains to be determined.3

CONCLUSION

In summary, asymptomatic isolated CTS can acutely decompensate during pregnancy and the early postpartum period. Surgical repair of asymptomatic CTS with an echocardiographically proven restrictive opening should be considered before pregnancy. Although successful medical management of decompensated cor triatriatum during pregnancy is possible, if severe cardiac decompensation ensues, urgent surgical intervention may be required. Since these patients are at high risk of developing acute heart failure, their care should be managed in large medical centres with immediately available multispecialty expertise.

REFERENCES

1. Işık O, Akyüz M, Ayık MF, Levent E, Atay Y. (2016). Cor triatriatum sinister: a case series. Turk Kardiyol Dern Ars. ;44(1):20-3.
2. Nassar PN, Hamdan RH. (2011). Cor Triatriatum Sinistrum: Classification and Imaging Modalities. Eur J Cardiovasc Med. 1(3):84-87
3. Bojanić K, Bursać D, Zmijanac J, et al. (2013). Isolated cor triatriatum sinistrum and pregnancy: case report and review of the literature. Can J Anaesth. 60(6):577-583.