In Utero detection and postnatal follow-up of a case of LV Non-compaction

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INTRODUCTION

Left ventricular non-compaction (LVNC) is rare congenital cardiomyopathy due to an arrest during fetal development of the myocardium. LVNC can be diagnosed at any age and the exact etiology is still unknown [1-2]. LVNC is being detected & described in fetal life in very few case reports.

PATIENTS AND METHODS

22-year-old lady para I with a medical history of Diabetes Mellitus (recently detected, poorly controlled) on insulin Level II ultrasound showed no cardiac abnormality on cardiac screening with normal 4 ch and outflow tracts. Fetal echo at 24 weeks showed the presence of LVNC with LV dysfunction.

The patient was counselled and prognosticated. Genetic studies are advised. She continued and was delivered by LUCS. A 3.4 kg, male baby with normal Apgar was born.

After an uneventful neonatal period, an follow-up the echo confirmed the presence of LVNC. He was put on decongestants and carvedilol.

Counselled again and advised to register in a cardiac transplant centre.

RESULTS

Echocardiography is the key tool for diagnosis, and MRI is helpful to confirm LVNC.

I. Thickened myocardium comprised of 2 layers, a thin compacted & thick noncompacted with a ratio of N/C >2 at end-systole.

II. Prominent trabeculae mostly located at apex & midventricular segments of inferior & lateral walls.

III. Color Doppler confirms interventricular blood supplies in recesses.

IV. Absence of any other structural cardiac abnormality.

DISCUSSION

Although echocardiography, and CMR, are used to identify LVNC, the definitive diagnostic criteria are yet to be established. With a poor prognosis, it’s important to detect this disease as early as possible, even in fetal life.

CONCLUSION

The fetal diagnosis of non-compaction cardiomyopathy may improve fetal morbidity and mortality.

REFERENCES