Intracardiac Tumors in Neonates: Report of 2 Cases of Myxomas.

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Introduction: Cardiac tumors are rare in children, with primary benign tumors more frequent than malignant lesions. Although cardiac myxoma is the most common primary tumor in adults, rhabdomyoma is the most frequently encountered in infancy and myxoma are uncommon.

Methods and Results: We report 2 cases of intracardiac myxomas in very young patients, respectively diagnosed prenatally and in the early neonatal period.

A 29-year-old G1P0 woman was referred for evaluation of a heart mass detected at 21 weeks gestation. At fetal echocardiogram, the tumor appeared unique (7x5mm), sessile and was localized at the apex of the right ventricle. The echogenicity was homogeneous without calcifications and slightly hyperechogeneous compared to the myocardium. According to power-Doppler, the tumor was not highly vascularized. The rhythm was normal and there was no hemodynamic compromise. At 27.4 weeks, the tumor was slightly larger with as only repercussion mild tricuspid valve regurgitation. A multi-organic disease was excluded by ultrasound and MRI. Fetal karyotype was normal and there was no evidence for tuberous sclerosis. A 4.4kgs full-term boy was born uneventfully. Clinical examination and ECG were normal. Postnatal echocardiogram defined the tumor as a sessile multilobed mass in the apex of the right ventricle. At 1-month of age, MRI evaluation led to the diagnosis of an isolated myxoma (17x11x12mm) without hemodynamic compromise.

Our second case was diagnosed in a 2-week-old girl, born full term with 3.5kgs, without any relevant personal or family history. A workup for cyanotic breath-holding-spells revealed an hyperechogeneous, homogeneous, sessile cardiac mass in the apex of the left ventricle. The biventricular function, cardiac anatomy and electrical activity were normal. MRI suggested a myxoma of oval form, 8x9x3mm. In both cases, a conservative approach was adopted because of the tumor stability and the absence of symptoms, arrhythmia and hemodynamic compromise. Our two patients are currently well at respectively 5-month and 3-year follow-ups.

Conclusions: Myxomas are very uncommon tumors in the pediatric age. They may however already be present prenatally and should be part of the differential diagnosis of cardiac masses. MRI may confirm the diagnosis. Surgical abstention is conceivable, especially when the patient is asymptomatic.