

# COULD THE PRESENCE OF CARDIAC ARRHYTHMIA HINDER PROPER HABILITATION?

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## Background

Cardiac fibromas, despite being benign, may produce severe symptoms including cardiac arrhythmias, chest pain, and occasionally a sudden death. They are the second most common primary cardiac tumor among children. Genetic assays are often conducted to rule out genetic conditions like tuberous sclerosis, which are usually linked to pediatric cardiac tumors.

## Case report

An eight-month-old male patient was referred to a pediatric physiatrist for a neuromotor development evaluation following complications after birth caused by a tumor (most likely fibroma) located on the interventricular septum of the heart. The tumor was detected in the 28th gestational week with fetal echocardiography. After an induced delivery in the 39th week, a comprehensive cardiological workup also discovered supraventricular tachycardia (up to 289 bpm) on a 24-hour electrocardiogram. On day 7, a decrease in blood oxygen saturation was caused by arrhythmia, which was ultimately converted to a sinus rhythm with the administration of adenosine, an antiarrhythmic medication. The initial pediatric physiatrist examination disclosed that the age-appropriate milestones were met albeit to a suboptimal level, except for the quadrupled position coupled with truncal hypotonia. After obtaining cardiological consent, the patient was enrolled in the neurodevelopmental habilitation with the components of the esteemed Bobath concept once a week in the outpatient settings and at home repeatedly. No complications were encountered during the habilitation. Due to the patient's regular cardiac surveillance and prescribed antiarrhythmic medications (sotalol and digoxin), no pathological tachycardias were recorded. Following an extensive habilitation, the latest pediatric physiatrist examination confirmed the 2-year-old boy has attained all age-appropriate developmental milestones.

## Conclusion

It is necessary to obtain cardiologist consent before starting habilitation with heart disease. The objective of habilitation is to pursue motor skills development to the utmost potential. Physiatrists must be aware of potential limitations of these patients before performing any physical therapy to ensure proper and safe habilitation.

**Keywords:** arrhythmia, cardiac fibroma, neurodevelopmental habilitation