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Fascicular ventricular tachycardia in a schoolchild: The importance of diagnosis and exercise testing in the patient's therapeutic response - Description of a case

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Introduction: Ventricular arrhythmias are usually more severe than supraventricular arrhythmias and are less penetrant in acquiring knowledge among pediatric teams due to their greater rarity. This leads to diagnostic and therapeutic errors in specific cases, such as fascicular tachycardia (FT), with relatively narrow QRS complexes, which often harms the patient, directly interfering with their quality of life. FT manifests almost entirely as arrhythmias of a structurally normal heart triggered by effort and with well-defined electrocardiographic morphology with positivity in V1, axis deviated to the left, and, in some cases, the presence of dissociated P waves. **Objective:** To describe the clinical aspects of a case of an 8-year-old schoolgirl with effort-induced tachycardia with FT pattern initially treated as supraventricular tachycardia. **Case description:** 8-year-old girl with tachycardia triggered by exertion with previous visits to the pediatric ER and diagnosed with supraventricular tachycardia. Initially, he received amiodarone for treatment. However, the tachycardia condition continued with minor self-limitation in an attempt to control the tachycardia episodes. An exercise test was requested, with easy onset of tachycardia with relatively narrow QRS complexes (110 ms) and positive morphology in V1 and axis deviation to the left. Analysis of long D2 shows the presence of AV dissociation and fusion, confirming the diagnosis of FT. It was decided to hospitalize the minor and reduce the dose of amiodarone, and introduce verapamil with progression up to 4.3 mg/kg/day with improvement in tachycardia episodes. A control exercise test was performed, and tachycardia was induced only with an HR greater than 170 bpm in sinus rhythm. The patient also reported significant symptom improvement within a short evaluation period (2 weeks). Radiofrequency ablation is being scheduled with a combined retro-aortic and transseptal approach. **Conclusion:** 1) The diagnosis of FT is based on knowledge of the typical electrocardiographic pattern; 2) Specific treatment with Verapamil (verapamil-sensitive arrhythmia)allows for an improvement in quality of life while awaiting definitive treatment with ablation; 3) The exercise test can serve as a therapeutic guide and guide the maximum HR to be reached by the patient before triggering FT crisis.