

# DILEMMAS AND PERSPECTIVES IN VENTRICULAR EXTRASYSTOLIS IN CHILDREN AND NORMAL STRUCTURAL CORD

## Author(s), affiliation

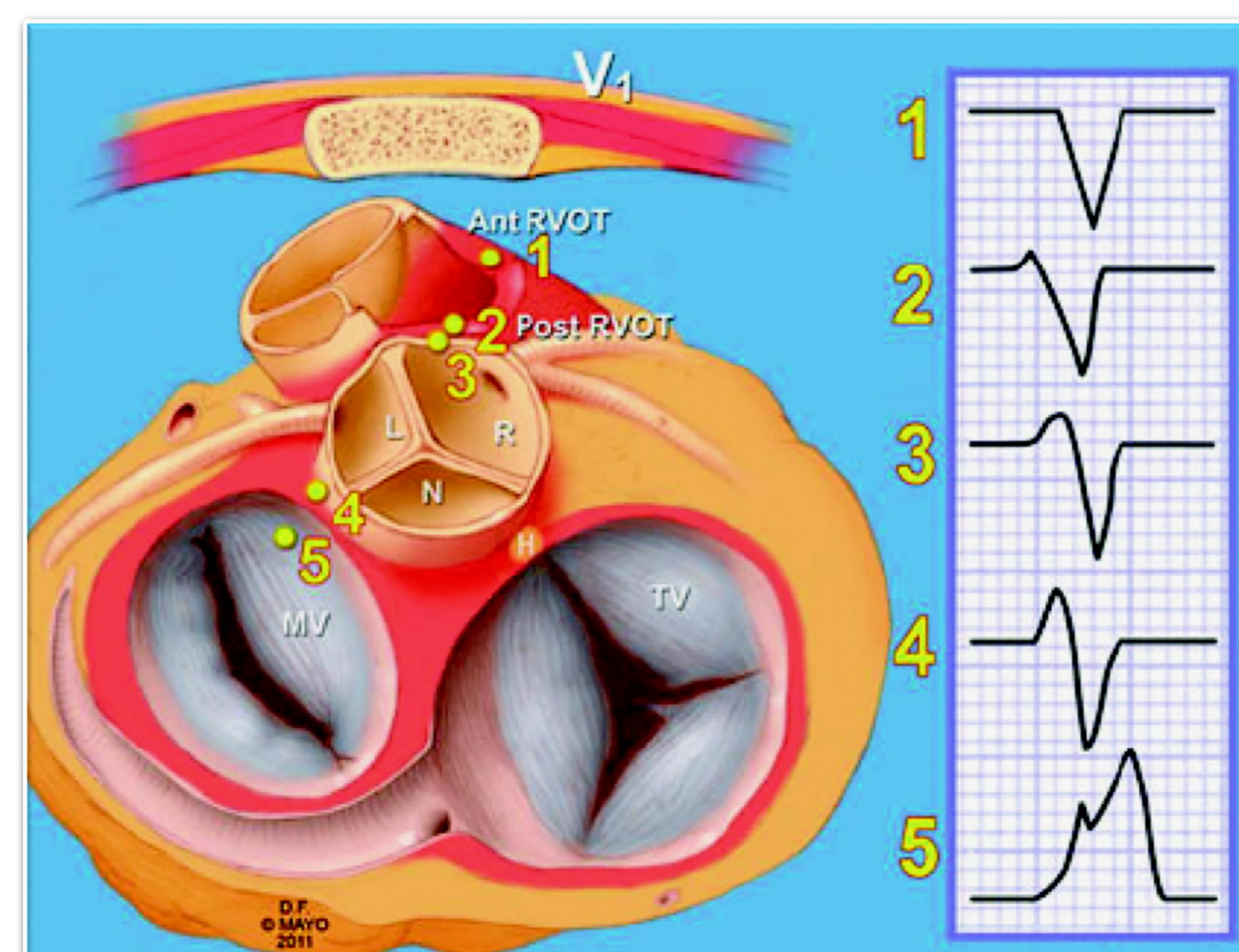
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**Introduction.** Ventricular extrasystoles (VES) are present in around 40% of healthy children (Figure 1). Considered benign, they are often neglected. Although symptomatic VES are subject to specific treatment, data on the effectiveness of antiarrhythmic treatment in children is limited and still undefined.

**Purpose.** Analysis and systematization of current data regarding the behavior of children with VES.

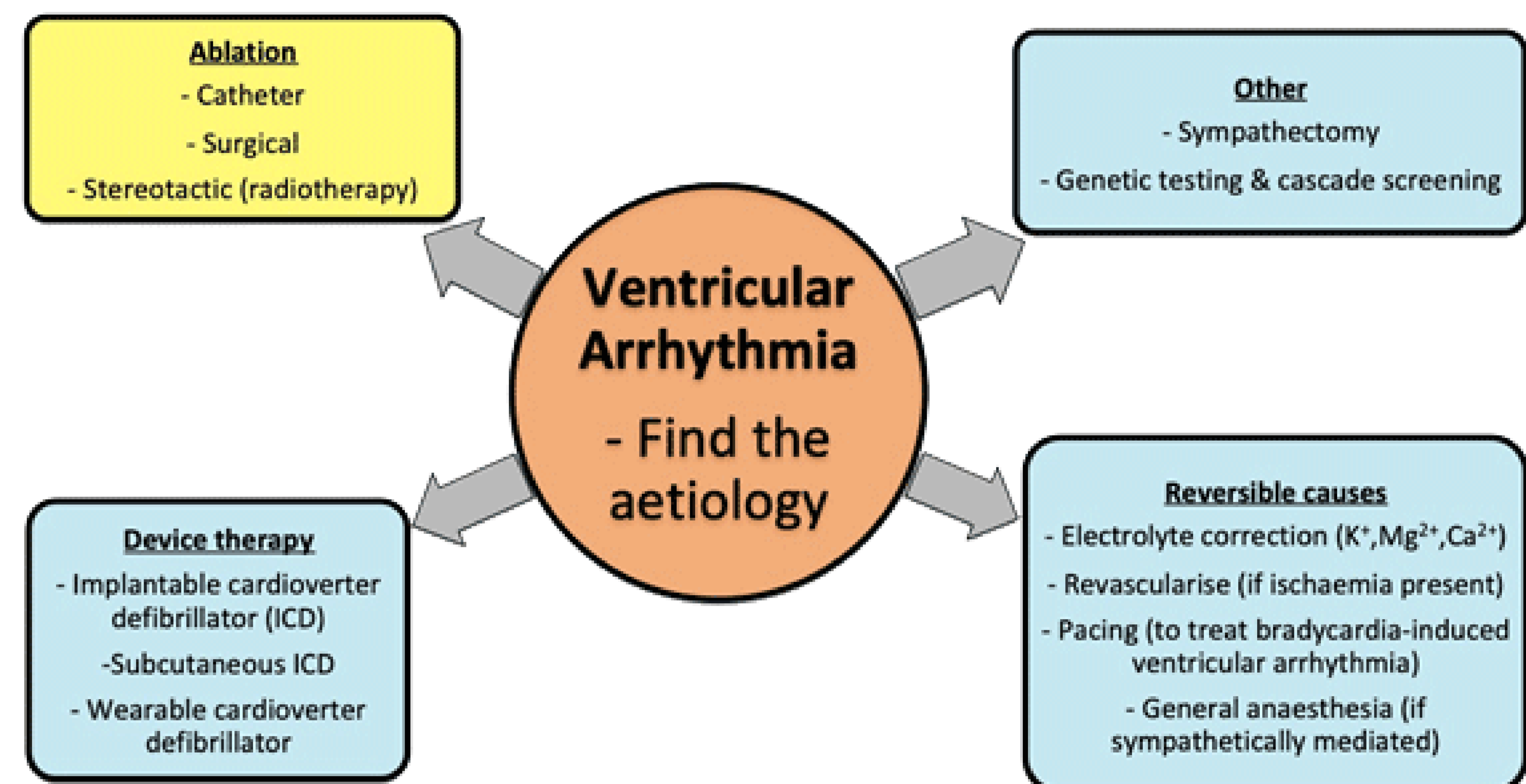
**Material and methods.** We analyzed the results of pediatric studies publications covering a period of 10 years (2012-2021), by accessing the databases PubMed, Scopus, HINARI using keywords.



**Figure 1.** ECG imaging depending on the origin of VES (Duncker D, et.al., 2019)

**Keywords.** ventricular extrasystoles, child, antiarrhythmic treatment.

**Results.** The analysis of the data of the completed studies, based mainly on small series of patients, denotes the prevalence in healthy children of monomorphic VES, isolated, originating from the ejection tract of the right ventricle. Unlike adults, the behavior of children with VES is influenced by the laws of growth and development. Despite the proven efficacy of flecainide in children with VES, beta-blockers remain the most indicated. The transcatheter ablation, a recommended treatment of line 2 in children, has a high rate of complications in infants and young children and limited indications in older children ( Figure 2).



**Figure 2.** Evaluation of patients with >500 VES per 24 h. There is no defined set of ‘minimal investigations’, but conceptually three axes of evaluation need to be explored (imaging, electrical, and genetic) and investigations considered on an a case to case basis (EHRA position paper: management of asymptomatic arrhythmias, 2019)

**Conclusions.** VESs are common arrhythmias in children. The behavior of children with VES remains unconcluded due to the lack of unified criteria for clinical and functional evaluation, which would allow an early initiation of an appropriate personalized treatment.