

Echocardiography in diagnosis of children's heart murmurs

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Background: Innocent (accidental, functional) heart murmurs are murmur phenomena which occur in anatomic and functional healthy heart. Etiology of innocent murmurs is not quite clear, but as most frequent cardiac reason is turbulent blood flow through valves of pulmonary artery and aorta and extracardial reasons: anaemia, febrility and infect. The meaning of these murmurs is in their large prevalence in young age (can be found in 50-60% healthy children) and very often it is the reason for fear of their parents and making wrong diagnosis. Fortunately, due to echocardiography, those mistakes are rare.

Objective: Children with innocent murmur should be examined by echocardiography at least once in a lifetime because, although the children are healthy, in a small percentage congenital heart disease was found.

Patients and Methods: Retrospective study of children with innocent murmur, examined at Clinical Hospital — Department of Pediatrics in Štip in the period from 2011 to 2012 at age of 0-14 years. Except 2D color echocardiography, other non invasive techniques were also used for diagnosis: history, laboratory, ECG and chest X-ray.

Results: The total number of examined children is 240, 150 male (63%) and 90 female (37%) in ratio 2:1. In the table below, organic murmurs from inorganic functional murmurs are differentiated and presented according to age. 196 (82%) of the total number of examined children are healthy, while 44 (18%) are with congenital heart disease.

Conclusion: Echocardiography as a method has no adverse affects or hazards, and it should be a routine diagnostic method in monitoring children with innocent murmurs and their differentiation from organic murmurs.

KEYWORDS: echocardiography, innocent murmur, organic murmur.

Received: 20th Mar 2013

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Diagnosis	0-1 month	2-12 months	1-3 years	4-14 years
A-V incomplete	1	/	/	/
VSD	/	3	/	/
TOF	2	/	/	/
CoA	1	/	/	/
TAPVR	/	1	/	/
FOA	/	7	/	/
DAP	/	2	/	/
ASD typ sec	/	/	3	/
PMV	/	/	/	23
AS+CoA	/	/	/	1

Literature

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