Dilated Cardiomyopathy in hospitalized children - a single center experience from Poland.

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Background  
Dilated cardiomyopathy (DCM) is one of the most common causes of the heart failure in children and one of leading reasons for the heart transplantation in this population. The prevalence of DCM in Polish children remains unknown and a national-based registry of DCM does not exist so far.

Methods  
A retrospective study of 88 children and youth (41% of girls and 59% of boys) admitted with confirmed DCM from 2008 to 2014 to a single center was performed. Patients' median age on the first admission was 2 years (2 months - 17 years). The diagnosis was made on a basis of echocardiographical findings in all patients. In a further evaluation a computed tomography was performed in 8 patients and a magnetic resonance imaging in 5. Etiology, administered treatment and mortality were evaluated.

Results  
Idiopathic DCM was diagnosed in the majority of cases (28 patients; 31,82%). Among identified causes of DCM there were left ventricular noncompaction (NCLV) (confirmed in 21 patients, including 3 with Barth syndrome – 23,86% and under evaluation in another 13 – 14,77%), myocarditis (18 patients; 20,45%), myocardial infarction (4 patients; 4,55%), arrhythmia (3 patients; 3,41%) and drugs (1 patient; 1,14%). 87 patients were treated with at least one pharmacological agent. ACE inhibitor was administered in 75 patients (85,22%), β-blocker in 77 (87,50%), steroidal antimineralocorticoid in 79 (89,72%), diuretic in 47 (53,40%). A group of 70 patients (79,55%) received combined treatment with ACE inhibitor and β-blocker. 30 patients (34,09%) were listed for the transplantation, including 8 with NCLV (26,66%). 15 children (17,04%) underwent heart transplantation, 7 of them (46,66%) required mechanical circulatory support as a bridge. Overall mortality was 9,09% (8 patients, including 1 after heart transplantation). Our research as a retrospective and single-centre has some biases.

Conclusion  
The number of patients with NCLV as a cause of DCM in presented data is considerable (over 20%). Despite the optimal pharmacological treatment the quick progression to the end-stage heart failure was often observed in the studied group. Further research to assess morbidity and prognostic factors in DCM is necessary.