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## **Title: Predictive factors of long-term survival in children dilated cardiomyopathy**

### **Abstract**

**INTRODUCTION:** The dilated cardiomyopathies (DCM) in pediatric patients is a severe disease and is the leading cause of heart transplantation in children. Predictive factors for mortality and transplantation differs from one study to another with a lack of long-term data. The aim of this study is to determine these factors during the follow-up.

**METHODS:** We performed a retrospective monocentric study of patients followed up for DCM. Patients under the age of 18 with idiopathic heart disease or myocarditis were included. Clinical, biological and echocardiographic parameters along with treatment information were collected throughout the follow-up.

**RESULTS:** The study included 110 patients from 2000 to 2016 with an average follow up duration of 4 years. 39% of patients died or underwent cardiac transplantation and 27% recovered. 75% had no events within the first year of the follow up. The predictive factors were diagnosing the DCM at or after the age of 5 ( $p=0.017$ ), the initial presentation is cardiogenic shock ( $p = 0.04$ ), hospitalization for acute cardiac failure at diagnosis ( $p <0.0001$ ) and the use of the loop diuretics ( $p = 0.01$ ). Moreover, more than one hospitalization for cardiac decompensation and the persistence of mitral insufficiency were factors of poor prognosis ( $p=0.02$  and  $p<0.001$  respectively). **CONCLUSION:**Our study identified predictive factors that were not previously known such as the number of cardiac decompensation and the use of diuretic treatment. Mitral insufficiency provides a

valuable prognostic factor for the patients requiring therapeutic management as soon as possible.

**Key Words** : myocardopathy dilated, children, long term follow up, cardiac insufficiency, cardiac transplantation