

**Acute myocarditis in children: single center experience**

*Walton C., Veyrier M., Ducreux C., Henaine R., Di Filippo S.  
Cardiovascular Hospital, University Medical Center of Lyon, France*

The objective of this study was to assess the outcomes of infants with acute myocarditis.

Methods : Patients <2years diagnosed with acute myocarditis (proved by virology and/or MRI and/ or complete recovery of myocardial function) were included in the study. Clinical data, echocardiographic parameters and outcomes were collected.

Results : 43 patients were included (1983 to 2012), aged 2 months to 2 years at diagnosis (median 6 months). Heart failure was present at onset in 97.6% of the cases, severe in 56% and cardiogenic shock occurred in 14.6%. LVSF at diagnosis was  $16.1 \pm 5.9\%$  and subaortic VTI was  $8.1 \pm 2.9\text{cm}$ . Mitral regurgitation was present in 76.5%, pericarditis in 16.4%, thromboembolic in 4.6%, arrhythmias in 14.6%. Virus was positive in 37.2%. Eight patients died (18.6%) within 2days to 8.6months after diagnosis, 1 was transplanted(3rdmonth). Follow-up is  $5.5 \pm 5.6\text{y}(\text{med}4\text{y})$ . Inotrope support was needed in 52% of the cases. Three patients(7%) needed mechanical circulatory support within day-14 from onset. The duration of support was 4d to 3mos. Ten-year survival was 81.4%. LVSF improved from  $18.4 \pm 8.9\%(\text{med}16\%)$  at onset, to  $24.6 \pm 10.3\%(\text{med}23.5\%)$  at 1stmonth,  $26.5 \pm 8.6\%(\text{med}26.5\%)$  at 3rdmonth,  $30.7 \pm 8.6\%(\text{med}29.6\%)$  at 6thmonth and  $38 \pm 7\%(\text{med}37\%)$  at last FU.

Conclusion : Acute myocarditis in infants has favourable outcomes despite early mortality. Myocardial contractility can progressively improve within the first 6months after onset of disease.