

INCIDENCE AND CLINICAL PROFILE OF INFLAMMATORY DILATED CARDIOMYOPATHY (DCMI) AMONG 24.275 CONSECUTIVE PATIENTS: 5-YEARS EXPERIENCE OF A TERTIARY CENTER

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Background: Endomyocardial biopsy (EMB) is an important tool when patients with cardiomyopathy (DCM) are evaluated.

Methods: We retrospectively analysed all patients presenting for DCM evaluation from January 2007 through December 2011. Aim of this study was to assess the incidence of DCMI and to compare the clinical profile of patients with and without DCMI.

Results: Among 24.275 patients treated at our institution, 683 (2.8%) had clinical suspicion of DCMI and underwent EMB (median age 58, interquartile range [IQR]: 48-68; 74% males; median ejection fraction 37.5%, IQR: 27.5%-50%; and mean symptom duration 86±166 days). 473 (69.4%) were diagnosed to have DCMI on EMB. Virus genome was detected in 81% (383/473). The most frequent virus was Parvovirus B19 (63.7% (244/383) isolated, in 16.7% (64/383) combined with other viruses). Patients with DCMI had more frequently a history of previous infection (18.6% versus 11.4%; p=0.02), hemodynamic compromise (systolic/diastolic blood pressure 132/80 versus 138/82 mmHg; p=0.02), lower cardiac index (1.98±0.6 versus 2.15 L/min/m²; p=0.03), or cardiogenic shock (10.2% versus 2.4%; p<0.001). On echocardiographic evaluation the incidence of wall motion abnormalities (87.4% versus 81.3%; p=0.04) and right ventricular dilatation (62.7% versus 48.7%; p=0.04) was more frequent in the DCMI group. The right ventricular systolic pressure was lower in patients with DCMI (38.2 versus 40.4 mmHg; p<0.05).

Patients with acute onset of symptoms (<14 days) had more frequently pulmonary edema (13.9% versus 4%; p<0.01), NYHA III/IV-class (39.6% versus 27.8%; p<0.05), lower systolic/diastolic blood pressure (130/78 versus 141/83 mmHg; p=0.02), left-ventricular (LV) ejection fraction of <35% (38.4% versus 17.8%), and higher LV end-diastolic volume indices on magnet resonance imaging (232±94 versus 146±12; p=0.01).

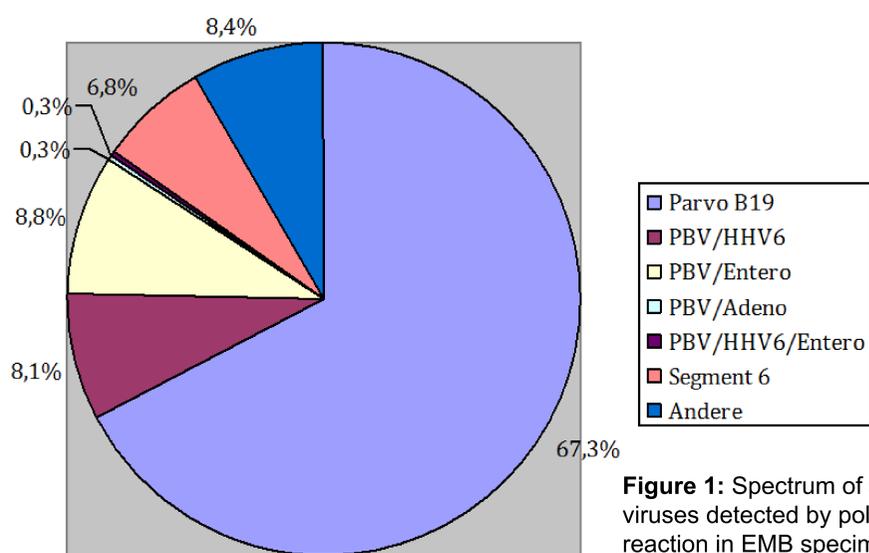


Figure 1: Spectrum of cardiotrophic viruses detected by polymerase chain reaction in EMB specimens

	Myocarditis (n=473)	No myocarditis (n=210)	p-Value
Hämodynamik			
Kardiogener Schock	10,2%	2,4%	<0,001
Systolischer RR [mmHg]	132,3±21,5	138±23,5	0,002
Diastolischer RR [mmHg]	80,1±11,5	82,5±12,8	0,02
Cardiac index	1,98±0,56	2,15±0,58	0,03
Klinik			
Vorangegangener Infekt	18,6%	11,4%	0,02
ICD-Schicks	0,6%	2,9%	0,03
Strukturell			
Regionale Wandbewegungsstörungen	87,4%	81,3%	0,04
RV Dilatation	62,7%	48,7%	0,04
AV-Block	5,7%	10,9%	0,02

Table 1: Significant differences between myocarditis and non-myocarditis patients

Conclusion: The incidence of biopsy proven DCMI in our series was ~2%, the dominant virus among virus-positive patients was Parvo-B19. The clinical profile of the affected patients does not reliably confirm or omit the diagnosis of DCMI.