Myocardial biopsies differentiate between myocyte- and endothelial-targeted myocarditis

We appreciated the review of the current literature to paediatric myocarditis by Lindsay J. May et al\(^1\) (June 2011 issue). Regarding the evolving approach, we would like to underline the meaning of myocardial biopsies even in terms of the shift from coxsackievirus B to adenovirus and, in the past 5 years, to parvovirus B19.\(^2\) In this context, we missed the pathogenetic features of inflammatory cardiomyopathy in terms of the fundamental difference between a coxsackievirus myocarditis and parvovirus B19 vasculitis-dependent cardiomyopathy, knowing well that endothelial cells but not cardiac myocytes are the Parvo B19-specific target cells in patients with Parvo B19-associated myocarditis.\(^3,4\) Taking this novel pathogenetic knowledge into account, the injury process of inflammatory cardiomyopathy is newly lightened. The question arises as to whether any newly diagnosed myocarditis-dependent cardiomyopathy really has a pathogenesis, as reviewed by the authors, or is it time to use all current diagnostic tools to differentiate between a primary cardiac myopathy in which the myocytes are the primary targets and a vascular disease with secondary ischaemic cardiac myocytes damage? Such a differentiation makes sense not only in consideration of the prognostic difference between the causal viral entities, but also with respect to the current efficacy of gamma-globulin therapy and in particular to novel therapeutic strategies such as cardiac stem cell therapy.\(^5\)

Dietmar Schranz
Department of Paediatric Cardiology
Justus-Liebig University
Giessen, Germany

Ina Michel-Behnke
Department of Paediatric Cardiology
Medical University of Vienna
Vienna, Austria

References