J Forensic Sci, September 2003, Vol. 48, No. 5
Paper ID JFS2003108_485
Published 4 Aug. 2003
Available online at: www.astm.org

Commentary on: Dettmeyer R, Kandolf R, Baasner A, Banaschak S, Eis-Hubinger AM, Madea B. Fatal parvovirus B19 myocarditis in an 8-year-old boy. J Forensic Sci 2003;48(1):183–186.

Sir:

In a recent issue of the *Journal of Forensic Sciences*, Dettmeyer et al. (1) reported investigations on sudden, unexpected death attributable to acute heart failure in an eight-year-old boy. During amplification of virus nucleic acid sequence, sequences specific for parvovirus B19 were found during PCR in myocardium and spleen tissues. The in-situ hybridization of viral genetic sequences was negative for any histological evidence of parvovirus B19 replication in cardiomyocytes. Nevertheless, it would be desirable to subject the very postmortem tissues to an in-situ PCR. In-situ PCR evaluations for viral sequences in the myocardium in cases of sudden unexpected death at Columbus, Ohio are intriguing. PCR had amplified viral RNA in situ for Coxsackie virus B in five cases, rotavirus, four cases, HIV-1, two cases, and in one case each, for influenza A or B virus B (2). That would establish or otherwise the speculated role of any immunological cross-reactivity attributable to common epitopes between parvovirus B19 and myocardium (1).

Fiscal input towards standardization of a possible muliplex in-situ PCR for detection different viruses that are associated with cardiac morbidity or mortality would be more than cost effective. During investigations on postmortem tissues, forensic investigators would be better placed to establish a viral etiology in instances of deaths otherwise obscurely labeled as an *acute heart failure.* Furthermore, an in-situ PCR on antmortem cardiac biopsy tissues in patients with declining heart performance or cardiomyopathy should help in a specific diagnosis of viral replication in myocardium (1,2). Surely, such patients with an enteroviral myocardium involvement could be offered pleconaril, an antiviral effective against life-threatening enterovirus infections (3).

References

1. Dettmeyer R, Kandoff R, Baasner A, Banaschak S, Eis-Hubinger AM, Madea B. Fatal parvovirus B19 myocarditis in an 8-year-old boy. J Forensic Sciences 2003;48:183–6.
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