Clinical and Laboratory Profile of Dengue Fever


due to release of cytokine mediators and/or cellular components of the immune response. The patients with dengue haemorrhagic fever and dengue shock syndrome have higher level of TNF-α, IL-6, IL-13 and IL-18, and cytotoxic factor which increase chances of myocardial damage, increased vascular permeability and shock.\(^2\) Recently described cases have shown that this self limiting disorder in form of atrial fibrillation and other arrhythmia have been persistent and non-resolving just like our case, thus requiring anti-arrhythmic treatment for long term.\(^3\)

Thus with the changing scenario, big studies like yours including the cardiac abnormalities would be required as a source of data for future. Electrocardiogram and Echocardiography should be used as tools in all studies along with cardiac enzymes estimation for monitoring the myocardial complications in Dengue fever especially in severe dengue and those with warning signs of dengue. This will also help in determining guidelines of anti-coagulation and for the role of steroids and other modalities of treatment like anti-arrhythmics for management of patient with various arrhythmias\(^a\) in setting of dengue fever.

References


Reply from Author

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Sir,

We appreciate Prof V N Mishra and his colleague for their keen interest in our article “Clinical and Laboratory Profile of Dengue Fever”.\(^a\) The point raised by them regarding cardiac complications appears valid but it is clarified that the study was conducted in a secondary level hospital where getting echocardiography in each and every patient of the 515 in total would have been a bit taxing
on the pocket of the patients, though electrocardiogram was done on case to case basis and on, as and when indicated. Thus it is likely that some transient arrhythmias may have been missed. A study focusing primarily on cardiac complications of dengue fever would be more appropriate. Mitrakrishnan C S Ivanthan et al in a recent article reviewed MEDLINE, EMBASE, Scopus SciVerse Google Scholar, and ULACS on cardiac involvement in dengue and reported that cardiac involvement in dengue is not uncommon but is often transient. Reported rhythm abnormalities included relative bradycardia, sinoatrial block, disorders of atrioventricular conduction (junctional rhythm, second-degree and complete heart block and monomorphic premature ventricular contractions on a background of heart block), atrial flutter, transient and persistent atrial fibrillation, self-limiting tachy-brady arrhythmia, sinoatrial block, and uniform ventricular ectopics progressing to ventricular bigemini. Electrocardiographic features mimicking acute myocardial infarction have also been reported. A high index of suspicion is needed to identify cardiac involvement early. The presence of electrocardiographic abnormalities may suggest possible cardiac involvement; however, echocardiography is currently the most useful investigation.

References