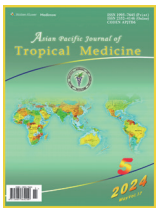

Letter to Editor

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Dengue causing relapse of minimal change disease: A double-edged sword

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Dengue virus infection is endemic in India with seasonal variations. It can lead to lethal consequences with plasma leakage and/or bleeding[1,2]. Dengue shock syndrome has high mortality in developing countries like India. Dengue can cause functional proteinuria and even heavy proteinuria[3-6]. Though dengue has been implicated to cause glomerulonephritis[7], to the best of our knowledge, dengue as a cause of relapse of minimal change disease (MCD) has not been reported. We have documented two back-to-back known cases of MCD, which relapsed with dengue virus infection. The girls aged 6 and 8 years respectively were in remission for more than 6 months when they got infected (diagnosed by positive NS1 antigen) and presented in shock (dengue shock syndrome) with ascites, pleural effusion and anasarca. On detailed evaluation, both were found to be relapsed with proteinuria (>4 g/day) and hypoalbuminemia (serum albumin<2.5 g/dL). They were oliguric when admitted. The interesting part in treating these two girls was that they were edematous and in shock. If we loaded them with crystalline solution (as per dengue management guidelines), it would have leaked into the third space, which would have increased anasarca and third space volume. Without intravascular volume repletion, shock could not be managed. We didn't start corticosteroid therapy in view of active viral infection. We managed them with slow albumin infusion (0.1 g/kg/h) with continuous slow crystalline infusion (normal saline). On third day of admission, prednisolone was used (2 mg/kg/day). Both cases improved satisfactorily. They were out of shock by day 2 and were discharged with prednisolone on day 5 of admission. We want to reiterate that dengue viral infection can cause relapse of MCD and in case of dengue shock syndrome coinciding with severe hypoalbuminemia, a cautious individually tailored approach should be beneficial. MCD can theoretically relapse with any viral infection with dengue shock syndrome, it's really a double-edged sword!

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Ethical approval and patients' consent

Informed consent was obtained from all individual participants included in the study.

Authors' contributions

SS, HV, and SK have contributed equally in conception and design of manuscript, analysis and interpretation of data and final approval of the manuscript.

Conflict of interest statement

The authors declare that there is no conflict of interest.

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