

## Abstract

**Introduction:** Dengue fever is one of the commonest mosquito-borne diseases in the tropics, and Sri Lanka is no exception. Despite its commonness, dengue fever has rarely been described among patients who have undergone transplantation. We report the case of a patient with dengue fever after liver transplantation, which, to the best of our knowledge, is the first such reported case outside Brazil.

**Case presentation:** Our patient was a 46-year-old Sri Lankan man who presented to our institution two years after undergoing an ABO-compatible cadaveric liver transplant. At presentation, he had typical symptoms of dengue fever. He was taking prednisolone 5mg daily and tacrolimus 3mg twice daily as immunosuppression. Initial investigations showed thrombocytopenia and neutropenia that reached a nadir by day 7 of his illness. He had elevated liver enzymes as well. The diagnosis was confirmed on the basis of NS1 antigen detection by enzyme-linked immunosorbent assay. His blood cultures and polymerase chain reaction tests for cytomegalovirus were negative. He made an uneventful recovery and was discharged by day 9 of his illness. However, normalization of liver function took nearly two weeks. In three previously reported Brazilian cases of dengue after liver transplantation, the patients presented with dengue shock syndrome, in contrast to the relatively milder presentation of our patient. Because of the lack of case reports in the literature, it is difficult to ascertain the risk factors for severe dengue infection in transplants, but dengue fever reported in renal transplants sheds some light on them. High-dose steroids increase the risk of thrombocytopenia, whereas tacrolimus has been reported to prolong the duration of symptoms. Otherwise, dengue fever is a relatively mild illness in patients who have undergone renal transplantation, and renal allograft survival has been reported to be 86% following dengue fever.

**Conclusion:** Dengue is a rarely reported infection in patients who have undergone transplantation. A high degree of suspicion is required for diagnosis. Dengue NS1 antigen detection is a useful addition to the already existing methods of diagnosis. Steroids and tacrolimus have effects on the morbidity of the disease. Graft outcomes following the infection has been excellent in all reported cases.