

Abstract

Hemophagocytic lymphohistiocytosis(HLH) is a syndrome characterized by unregulated excessive activation of macrophages and cytotoxic lymphocytes due to the impaired inhibitory action of NK cells and cytotoxic T lymphocytes that leads to a storm of cytokines damaging multiple organs including the liver. Familial HLH is more common than sporadic HLH and starts in neonatal life. Sporadic HLH cases are usually secondary to a trigger by an infection or hematological malignancy. Epstein Bar Virus (EBV) is the commonest identified trigger although an increasing number of dengue virus precipitated HLH cases also reported. Our patient is a 17-year-old girl presented with high-grade fever and evidences of liver damage, developed HLH secondary to dengue infection. She was successfully treated with steroid high doses and supportive care.

groups^{3 4 5}. HLH is broadly divided into two types as familial and sporadic⁶. Infection act as a common trigger for both types of HLH syndromes². Among infections Epstein bar virus(EBV) infection is the commonest trigger and there are reported cases of HLH following Dengue virus infection^{2 7}. Activated macrophages and cytotoxic T lymphocytes causing tissue destruction are considered the main pathophysiological mechanism¹. Excessive immune activation is driven by attenuated down regulation process of activated macrophages and lymphocytes mediated immune activation. Natural killer cells and cytotoxic lymphocytes subsequently eliminate damaged, stressed or stressed host cells, and lyse autologous cells such as macrophages which bear foreign