

Secondary hemophagocytic lymphohistiocytosis in a child with concomitant ebstein barr virus and scrub typhus infection – A rare entity

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Scrub typhus is a life threatening zoonosis caused by orientia tsutsugamushi transmitted by the larvae of trombiculid mites. It is characterised by focal or disseminated vasculitis and perivasculitis involving the lungs, liver, spleen and central nervous system. Hemophagocytic lymphohistiocytosis (HLH) is a potentially fatal syndrome resulting from dysregulated activation and proliferation of lymphocytes. Infections like cytomegalo virus (CMV) and Epstein-Barr virus (EBV) are important triggers for hemophagocytosis. Here we present an 8 year old boy with fever, maculopapular rash, hepatosplenomegaly and lymphadenopathy who was admitted in our institution and diagnosed with Scrub typhus. Physical and laboratory data showed hepatosplenomegaly, bicytopenia, hyperferritinemia and hypofibrinogenemia. Secondary HLH was diagnosed and the child was managed with IVIG and steroids. In view of history of rash followed by lymphadenopathy and hepatosplenomegaly EBV serology was also sent as a cause of HLH. Surprisingly, EBV panel was also positive (EBV IgM, EBV IgG, EBCA, EBEA, EBNA). Our study concluded that EBV triggered secondary HLH in scrub typhus positive child This phenomenon is supported in few adult studies. Another hypothesis is EBV can be triggered in critically ill patients. To the best of our knowledge this is the first such case in the pediatric population reported in the English literature till date.

Biography

Saheli Dasgupta is a senior register in department of neonatology in AMRI hospitals, Mukundapur(2019 – 2020) senior resident in department of pediatrics in South Howrah State General Hospital (2018 – 2021).