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OSCULUM IS FOE FOR US! WHEN GREGARIOUS WITH EBV

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Abstract:

Infectious mononucleosis is an acute illness due to Epstein Barr Virus (EBV) infection, which occurs commonly in young adults. Liver involvement in acute EBV infection occurs in up to 95%of patients between the 6th and 15th day of illness and is usually mild [1]. Here we report on a 2year-7month old female child treated by paediatric department, presented with prolonged fever, lymph adenopathy, generalized edema and elevated liver enzymes secondary to EBV infection. This case represents a rare presentation of common viral infection in paediatric population.

Keywords: *EBV, IM, Viral infection, Lymphadenopathy*

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INTRODUCTION:

Infectious Mononucleosis is a clinical syndrome caused by EBV [2]. Transmission being principally through exposure to infected saliva. It is called *kissing disease* [3]. Atypical features are fever, pharyngitis, lymph adenopathy and an atypical lymphocytosis. An atypical lymphocytosis of atleast 20% or atypical lymphocytosis of atleast 10% plus lymphocytosis of atleast 50% strongly support the diagnosis, as do a positive heterophile antibody and specific IgG/IgM tests[2]. Symptomatic treatment the main stay of care includes adequate hydration, analgesics, antipyretic and rest.

CASE REPORT:

A 2year 7month old female child, developmentally normal well thriving adequately immunised child was admitted with swelling in the neck associated with persistant high grade fever and stuffy nose since 5days. On examination she had membranious tonsillar hypertrophy with congestion, bilateral survical right axillary and bilateral inguinal lymphadenopathy and hepato splenomegaly. On suspicion of infection mononucleosis, child was evaluated as outpatient on day four of fever and found to have evidence of transformed lymphocytes and lymphocytic leucocytosis with positive EBV capsid antigen IgM. Child was diagnosed to have infection mononucleosis and treated as outpatient but as child had persistant fever she was admitted and started on IV fluids, IV antibiotics (Ceftriaxone) after blood and urine culture suspecting secondary bacterial infection. As fever persisted even after 72 hours she was added on IV amikacin. But fever persisted despite two antibiotics even after 5days hence child was evaluated and found to have persistant lymphocytic leucocytosis with raised liver enzymes and lympadenopathy. Ultrasound revealed nonspecific hepatosplenomegaly with enlarged lymp node in porta hepatitis. Inview of persistant fever child was evaluated for hemophagocytic lymphohistiocytosis which revealed mild raise in ferritin, triglycerides and LDL. As fever persisted even after two weeks she was started on oral prednisolone following which fever, lymphadenopathy and hepato splenomegaly reduced and child became well and active hence discharged home with advice.

DISCUSSION:

EBV is a rare causative agent of acute hepatitis, during the course of infectious mononucleosis. Usually, it is mild, undetected clinically and resolves spontaneously. Jaundice is distinctly uncommon; cholestatic hepatitis due to EBV infection is rarely reported. We should consider infectious mononucleosis hepatitis in differentiating patients presenting with liver abnormality, fever, pharyngitis, and lymphadenopathy.

EBV is a ubiquitous human herbis virus i.e., usually transmitted through close personal contact among young children and via intimate oral contact among adolescent and young adults [4]. Contact of EBV with oropharyngeal epithelial cells allows replication of virus, release of EBV into the oropharyngeal secreations and infection of Bcells in the lymphoid rich areas of the oropharynx [5].

The incubation period prior to the development of symptoms averages 4-8 weeks [6]. The cardinal symptoms of infectious mononucleosis are the well known triad fever, pharyngitis and peripheral lymphadenopathy especially involving the posterior cervical change. A minority of the patients have splenomegaly [7]

Lymphocytosis associated with infectious mononucleosis caused by an increased in the number of circulating activated T and B lymphocytes. The histological findings of infectious mononucleosis hepatitis include minimal swelling and vacuolization of hepatocytes, as well as infilteration with lymphocytes and monocytes in periportal area [8].

The pathogenesis of infectious mononucleosis hepatitis is not well understood. Traditionally, it has been thought that hepatotrophic viruses are not directly cytotoxic. But instead, that immune response to viral antigen on hepatocytes result in hepatocyte death [9].

CONCLUSION:

Atypical presentations of EBV infections are more common in with increasing age. But can also be seen in young children. All paediatrian should be aware of various presentations of common viral childhood infections in order to provide a comprehensive cascade of investigation and supportive management for those children. The good news is that most of the viral infections are self limited and rarely can lead to significant morbidity and mortality immunocompetent patients.

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