Periorbital Edema as the Initial Manifestation of Epstein-Barr Virus Infection

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Rationale: Epstein-Barr virus (EBV) is the cause of heterophile positive infectious mononucleosis (IM) typically characterized by fever, sore throat, lymphadenopathy and atypical lymphocytosis. Periorbital edema is reported in up to 33% of cases with IM, but rarely occurs as the initial manifestation of the disease. Therefore, it may often be mistaken for angioedema or other etiologies. We report a 16 year old girl with periorbital edema as the initial manifestation of IM.

Methods: Case report of a 16 year old girl who developed non-pruritic periorbital edema which improved with gravity nearly two weeks prior to the presentation of acute pharyngitis, lymphadenopathy, and fever. She was initially referred for a possible allergic reaction, but was subsequently diagnosed with EBV infection.

Results: During the initial visit, physical exam revealed non-pruritic bilateral periorbital edema. CBC revealed normal WBC, hemoglobin, hematocrit, a decreased platelet count of 131 K/μL (150-350 K/μL), and normal differential. CMP revealed elevated total bilirubin of 2.3 mg/dL (0.1-1.0 mg/dL) with normal transaminases. Total IgE, C3, and C4 levels were normal. During a follow-up visit, exam revealed pharyngitis with lymphadenopathy. Monospot test returned positive, and CBC showed elevated WBC of 17 K/μL (4.5-13 K/μL) with normal differential.

Conclusions: Periorbital edema rarely occurs as the initial manifestation of IM. We suggest that IM should be included among the initial differential diagnoses of periorbital edema as it is often initially mistaken by practitioners for angioedema, cellulitis, nephrotic syndrome, or thyroid disease.