

Periorbital oedema

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CASE REPORT

A 15-year-old girl presented with a three-day history of progressive bilateral eyelid swelling despite antihistamines prescribed by her general practitioner under suspicion of an allergic reaction. There was no burning, itching or pain in the eyes. She denied use of topical medications, cosmetics and contact lenses. She also complained of painful and swollen cervical lymph nodes and fatigue during the last 24 hours. On physical examination she was not ill and was afebrile. She had bilateral periorbital oedema (*figure 1 and 2*). There were no overlying skin changes or red

eyes. Throat examination showed no pharyngitis. Tonsils were absent after tonsillectomy 11 years earlier. Tender lymphadenopathy was present in the cervical and inguinal regions. The liver and spleen were not palpable. Except for the eyes there was no peripheral oedema.

WHAT IS YOUR DIAGNOSIS?

See page 339 for the answer to this photo quiz.

Figure 1 and 2. A 15-year-old girl with progressive bilateral eyelid swelling



Pictures are published with explicit permission of the patient.

DIAGNOSIS

C-reactive protein was 20 mg/l (<5). White cell differential showed 20% atypical lymphocytes. The platelet count was $118 \times 10^9/l$ (150 to 350) and transaminase levels were slightly elevated. Urine dipstick test was negative for red cells and protein. Suspicion of Epstein-Barr virus (EBV) mononucleosis was confirmed by a positive monospot test and anti-EBV-viral capsid antigen (VCA) IgM. IgG against EBV-VCA and EBV nuclear antigen (EBNA) was absent. Because anti-EBV-VCA IgG is usually present at the onset of clinical disease and since the IgM and monospot test can be falsely positive, a polymerase chain reaction (PCR) assay for EBV DNA quantification was performed. This test showed 306,700 EBV DNA copies/ml, confirming the diagnosis of infectious mononucleosis.

Subsequently she experienced some days of fever, chills and malaise. The periorbital oedema resolved spontaneously within a week. After four weeks all symptoms had disappeared.

Typical symptoms of infectious mononucleosis include fever, tonsillopharyngitis, lymphadenopathy and splenomegaly. Bilateral periorbital oedema is a less common clinical feature,¹ although it has been reported in up to one third of patients.² Periorbital oedema usually develops early in the course of infectious mononucleosis and can be the presenting manifestation of the disease.^{3,4} Then it can be mistaken for angio-oedema, cellulitis,

contact dermatitis, nephrotic syndrome or thyroid disease. In the present patient the initial diagnosis was an allergic reaction. Eyelid oedema in mononucleosis is usually not accompanied by conjunctivitis, inflammation or tenderness of the eyelids.³ A distinct atypical lymphocytosis is frequently present in these cases.

The aetiology of the oedema is unknown, but nasopharyngeal replication of virus, lymphoproliferation, or lymphatic obstruction may be contributing factors.⁵

This case emphasises that infectious mononucleosis should be included in the differential diagnosis of periorbital oedema.

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