

CASE REPORT

A CASE OF INFECTIOUS MONONUCLEOSIS PRESENTING WITH HEADACHE, LOSS OF WEIGHT, AND LETHARGY

A 22-year-old white male with no significant past medical history presented to the Department of Medicine with a 1-month history of lethargy, loss of appetite, 3 kg weight loss, and worsening frontal headaches. Examination was unremarkable apart from mild terminal meningism. He was afebrile, without a pharyngitis, lymphadenopathy, or organomegaly.

Blood results showed a white cell count of $9.10 \times 10^9/l$ (with a lymphocytosis of 79.2% and neutrophils of 13.8%). Atypical lymphocytes and mild neutropenia were observed on blood smear. Platelet count was 128, ESR 5 mm/h, CRP 12. Electrolytes were normal and liver function tests were deranged (bilirubin 25 mmol/l, alkaline phosphatase 305 U/l, ALT 461 U/l).

A computed tomography scan of the brain showed incidentally asymmetrical ventricles, no focal intracerebral pathology and no abnormal meningeal enhancement. A moderate splenomegaly, without focal lesions, hepatomegaly, or abdominal lymph nodes was seen on ultrasound examination.

Initial lumbar puncture was equivocal, with a protein of 0.65 g/l; glucose 3.6 mmol/l (blood glucose 6.9 mmol/l); polymorphs 5; lymphocytes 2; red blood cells $2/mm^3$. Microscopy and culture were normal, as was the cryptococcal latex agglutination test (CLAT). Ten days later, repeat lumbar puncture showed a lymphocytic pleocytosis (lymphocytes 20; polymorphic nucleocytes 0; red cells $0/mm^3$; protein = 0.58 g/l). Viral studies were negative for hepatitis A, B and C, as well as HIV and cytomegalovirus.

However, the monospot heterophile antibody agglutination test for Epstein-Barr virus (EBV) was positive, and EBV nuclear antigen (EBNA) antibodies were negative, indicating a diagnosis of acute infectious mononucleosis (IM), with aseptic meningitis and hepatitis.

World-wide, 90% of adults are seropositive for EBV. The virus is spread by saliva, and infects epithelial cells and B lymphocytes. Although rare in children, symptoms are present in up to 75% of adults, who classically present with fever, pharyngitis and lymphadenopathy.

Neurological complications, which include aseptic meningitis, meningoencephalitis, Guillain-Barré syndrome and cranial nerve palsies, occur in 1 - 5% of cases. Splenomegaly is common (50 - 60%), as is a mild rise in liver enzymes (up to 90%).

Diagnosis is made with a compatible history, a lymphocytosis with atypical forms, and a positive heterophile antibody test. Atypical lymphocytes are also seen in other infections (e.g. CMV, acute HIV, toxoplasmosis and hepatitis). The monospot test has a sensitivity and specificity of almost 85% and 100% respectively, and normally remains positive for about 3 months. The EBNA antibodies only become positive after 6 - 12 weeks, and remain positive for life.

Treatment of IM is symptomatic, with no benefits from treatment with acyclovir or corticosteroids, except if acute airway obstruction complicates the pharyngitis, in which case steroids may be tried.

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