

## **CASE REPORT**

### ***Patients with cytomegalovirus infection in general practice***

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Cytomegaloviruses (CMV) belong to the same group as herpes simplex. Adult disease due to CMV is rare; the typical features are fever, atypical mononucleosis (Klemola), and the hepatitis (Lamb, 1966; Toghil, *et al.*, 1967), especially after blood transfusion (Kaariainen). Severe infections occur in patients with lymphoma or leukaemia, and those receiving kidney transplants (Stern, 1968).

Two cases have been seen in a single practice this year and are described.

#### *First patient*

A man aged 50 receiving PAS and INAH for renal tuberculosis developed a febrile illness lasting three weeks, and complicated by exfoliative dermatitis. There was no pharyngitis or lymphadenopathy. Atypical mononucleosis lasted for four weeks—the peak level was a total white cell count of 11,900 cu.mm., including 7,200 lymphocytes of which 2,600 were atypical forms. Maximum ESR was 8 mm. Retrospective testing of stored serum showed anicteric hepatitis-bilirubin 1.2 mg per 100m. SGPT 150 i.u., and alkaline phosphatase 14.2 King Armstrong Units.

PAS hypersensitivity was diagnosed, since fever, mononucleosis, hepatitis and rashes have all been described in this reaction (Simpson, 1960): rifampicin was substituted for PAS and three days later nausea, fever and jaundice occurred; liver function tests showed a bilirubin of 6.1 mg per 100 ml. SGPT 340 i.u. Clinical and biochemical recovery was complete four weeks later.

The diagnosis of PAS hypersensitivity was reviewed when the results of CMV antibody titres in paired sera became available six weeks later. A titre of 1:256 occurred during the acute phase, falling to 1:64 in convalescence; some of this antibody was IgM. Virus was not isolated from the urine. Paul Bunnell, Ebstein Barr virus antibody, toxoplasma, and adenovirus antibody levels were repeatedly negative. Chest x-ray, anti-nuclear factor and blood cultures were negative. Australia antigen was not detected.

#### *Second patient*

A woman aged 52 presented with pyrexia of unknown origin which lasted for four weeks. There was no pharyngitis or lymphadenopathy. The liver and spleen were not enlarged. Chest x-ray, anti-nuclear factor and blood cultures were negative. The maximum white cell count was 21,000 cu.mm., including 16,800 lymphocytes of which 12,600 were atypical forms. Peak ESR was 81 mm. Liver function tests were normal. Paul Bunnell, Ebstein Barr virus, toxoplasmosis and adenovirus tests were repeatedly negative. Mononucleosis persisted for two weeks after clinical recovery.

CMV antibody levels showed a rise in antibody during the acute phase from 1:8 to 1:64; much of the antibody was IgM. Virus was not isolated from the urine.

#### **Discussion**

On each occasion the diagnosis of CMV infection was made after recovery had occurred. Commoner causes of fever and mononucleosis (glandular fever, adenovirus, enterovirus, toxoplasma, tuberculosis, drugs) were excluded first, as were causes of hepatitis (infective and serum hepatitis, or drugs). As a consequence, attempts to isolate the virus from the urine were made more than three months from the onset of the illness.

The diagnosis of CMV infection rests upon changing titres of antibody and the presence of IgM fraction of antibody, which indicates current infection. Final confirmation depends upon isolation of the virus from urine.

There is no treatment for the disease; steroids in neonatal infection and injections of pooled immune globulin in severe adult cases have been used with little benefit.

The first case illustrates the hepatotoxicity of rifampicin, as well as the problem of the roles played by CMV infection and PAS hypersensitivity in producing the syndrome. Since it is known that glandular fever induces a transient state of hypersensitivity to ampicillin, it is possible that CMV infection predisposes to PAS hypersensitivity.

The second case is not typical of CMV infection because no clinical or biochemical evidence of hepatitis was found.

#### Summary

Two cases of fever and atypical mononucleosis due to CMV infection are described. It is recommended that tests for CMV infection be performed in this syndrome once more common causes have been excluded.

#### Acknowledgement

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#### REFERENCES

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#### GERIATRIC ADMISSIONS

A study of the reasons for admission of 280 patients from their own homes to a geriatric unit in the East end of Glasgow showed that in two-thirds of cases patients were admitted primarily because they failed to receive adequate basic care at home (usually because of lack of relatives) or because their relatives suffered undue strain in caring for them. Neglect by relatives played a negligible part in the need for admissions.

Isaacs, B. (1971). *British Medical Journal*, **4**, 282 (Author's summary).