

CMV

Transmission can occur following primary or recurrent maternal infection

ANTENATAL DIAGNOSIS

Indications for testing mother

- Intrauterine growth retardation (IUGR)
- Fetal hydrops
- Maternal HIV

Maternal tests

CMV IgM

- A negative result excludes current infection
- A positive result is **suggestive** of recent infection only if there is a rise during pregnancy; **compare** IgG avidity (titre) from two specimens >10 days apart

Ultrasound

Features include:

- Intrauterine growth retardation (IUGR)
- Hydrocephalus (ventricular dilatation), intracranial calcification, microcephaly
- Ascites, hydrops fetalis
- Pleural or pericardial effusions
- Oligo- or polyhydramnios
- Hepatomegaly
- Abdominal calcification
- Pseudomeconium ileus
- Thickened placenta

INFANT DIAGNOSIS

Main clinical signs

- Small for gestational age
- Petechiae/purpura
- Hepatosplenomegaly
- Jaundice
- Pneumonia

Investigation results

- CMV IgM positive
- CMV PCR urine positive
- Haemolytic anaemia
- Thrombocytopenia
- Conjugated hyperbilirubinaemia
- Raised liver enzymes
- Repeat maternal or baby's HIV antibody test

If any of above results is positive, continue with further investigations

FURTHER INVESTIGATIONS

CSF

- Raised CSF protein

Ophthalmology

- Chorioretinitis

Audiology

- Sensorineural hearing loss

Head US

- Hydrocephalus, cysts

CT of brain

- Intracranial calcification
- Ventriculomegaly
- Cerebral atrophy

TREATMENT

Asymptomatic (CMV IgM or PCR positive)

- Seek expert advice from paediatric infectious disease specialist regarding offering valganciclovir (possibly as part of an on-going international trial)
- advantages: reduced risk of deafness
- disadvantages: immunosuppression

Symptomatic

- Ganciclovir [prepared by pharmacy (cytotoxic)] 6 mg/kg IV over 1 hour 12 hrly for 2 weeks then 10 mg/kg IV over 1 hour on alternate days for 3 months
- monitor for neutropenia and renal function throughout
- discuss with specialist in paediatric infectious diseases

FEEDING

- Do not discourage infected women from breastfeeding their own uninfected, term infants (CMV can be transmitted via breastfeeding, but benefits of feeding outweigh risks posed by breast feeding as a source of transmission)
- Avoid breastfeeding of premature neonates if mother is positive and baby asymptomatic