

INFRATENTORIAL IMAGING FINDINGS IN CONGENITAL CMV

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Introduction: The cerebellum is less frequently involved in congenital CMV (cCMV) than the supratentorial brain. Detailed and accurate description of the cerebellar imaging features following cCMV are scarce. We aim to characterise the imaging features in the cerebellum in cCMV.

Methods: A retrospective study of infants referred to the tertiary Paediatric Infectious Disease Unit from 1 January 2012 to 30 June 2022. Infants identified via clinical database who had microbiological confirmation of cCMV infection and an MRI performed before 4 months of age. All brain MRI examinations were retrospectively reviewed by two consultant neuroradiologists (WJ, CK) who were aware that infants were being investigated for cCMV.

Results: 89 patients with cCMV were assessed. 61 patients (69%) had an abnormal MRI brain. Only nine of those patients (15%) were found to have infratentorial abnormalities. All nine patients had significant supratentorial abnormalities. 8 were term babies, 1 was born at 25+5 weeks. 4 (44%) had cerebellar calcifications, and all 4 of those patients had supratentorial calcifications. 6 (67%) had cerebellar white matter signal abnormalities (WMSA), all of which had supratentorial WMSA. 7 (78%) had cerebellar dysfoliation, of which 6 (86%) had supratentorial malformations of cortical development. 6 (67%) had cerebellar hypoplasia, of which all had diffuse WMSA and malformations of cortical development, and 5/6 (83%) had supratentorial cysts.

Conclusions: Cerebellar abnormalities are not common in cCMV. The pertinent imaging features are cerebellar calcification, WMSA, dysfoliation and hypoplasia (figure 1). These usually occur in the presence of severe supratentorial abnormalities.