improvement in neurological symptoms, indicating that the cytomegalo virus infection was a cause of her neurological disease. The etiology of Bickerstaff's brainstem encephalitis is still unclear. A relation with herpes simplex virus infection has been noted, but no patients with Bickerstaff's brainstem encephalitis have been associated with cytomegalovirus infection or post-infection autoimmune mechanism may have caused clinical symptoms in this patient.

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Raymond syndrome (alternating abduc- cent hemiplegia) caused by a small haematomata at the medial pontomedullary junction

Raymond syndrome1 is characterised by ipsilateral abducens nerve palsy and contralateral hemiplegia. Pure Raymond syndrome is extremely rare, as many nuclei and fibres exist near the root fibres of the abducens nerve. This is the first report in which the precise localisation of a pure form of Raymond syndrome was determined by MRI.

A 39 year old man awoke with horizontal diplopia, especially on right lateral gaze. Five days later, a Hess chart examination performed revealed a left oculomotor paresis of the right lateral rectus muscle. On admission 19 days after onset, the patient showed a mild paresis of the right abducens nerve and a subtle weakness of his left leg with moderate hyper-reflexia in the left upper and lower limbs. The Babinski reflex was positive and the abdominal reflex was absent on the left side and the Babinski reflex was negative and the abdominal reflex was positive on the right side. No facial weakness or deviation of the tongue on protrusion was found. All other general and neurological examinations were normal. Routine blood and urine examinations were normal. Evaluations of short latency somatosensory evoked potentials to posterior or thalamic nerve stimulation, brainstem auditory evoked potentials, and blink reflex examination showed normal values. Head CT was normal, but a brain MRI done 31 days after onset showed two punctate high signal intensity spots surrounded by low signal intensity areas at the right pontomedullary junction (arrows). The lesion producing the pure Millard-Gubler syndrome was well known to induce crossed paralysis due to a caudal pontine lesion. The pure form of this syndrome has, however, rarely been reported. The lesion producing the pure Millard-Gubler syndrome is located more laterally than seen in our patient, whereas that producing isolated abducens nerve palsy is located more dorsally. As the haemorrhage was restricted to the ventral and medial pons, our patient was considered to show pure Raymond syndrome.

Correction of the left pupil in association with hallucinations projected into the left visual field was reported as an ictal phenomenon by Lance and Smee and