Dancing eyes, hidden danger: unveiled medulloblastoma in a young girl

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ABSTRACT

Medulloblastoma is the most common malignant paediatric brain tumour originating in the cerebellum, predominantly affecting children. It grows rapidly and potential spread within the central nervous system (CNS). Patient is an 8-year-old girl presented with complain of left eye (LE) convergent squint for two weeks. Otherwise, no other constitutional symptoms. On examination, both eyes (BE) best corrected vision 6/15. Relative afferent pupillary defect negative. Presence of gaze evoked horizontal jerk nystagmus in left gaze. Extraocular muscle movement revealed limited abduction of LE. BE intraocular pressures were 17 mmHg and anterior segments were unremarkable. BE optic disc was blurred with elevated margin graded Frisen grade 3, retina flat and macula normal. Urgent contrast-enhanced computed tomography (CT) Brain scan was done noted to have 3.2 cm x 3.4 cm x 3.1 cm posterior fossa mass with obstructive hydrocephalus without midline shift. Urgent magnetic resonance imaging done noted evidence of cerebellum and spinal leptomeningeal cerebrospinal fluid seeding. She underwent urgent ventriculoperitoneal shunt placement followed by midline suboccipital craniotomy, C1 laminectomy and tumour debulking surgery. Histopathology result reported poorly differentiated neoplastic cells arranged in sheets and syncytial pattern, with frequent mitosis and apoptotic bodies suggestive of medulloblastoma and strong positivity for synaptophysin suggestive of CNS WHO grade 4 and followed by radiotherapy and chemotherapy. High index of suspicion for brain tumours especially in children presenting with acute ocular symptoms especially nystagmus even without other neurological, is essential for timely diagnosis and management.