Bilateral transtentorial herniation and isolated fourth ventricle: A scientific note

Sir,

In transtentorial herniation, downward shift of the uncus occurs through the tentorial incisura and often leads to death. The treatment is decompression.\(^\text{[1]}\) Bilateral uncal herniation is typically seen in brain death.\(^\text{[2]}\) Transtentorial herniation can cause occipital infarcts resulting in visual loss.\(^\text{[3]}\) A 9-year-old boy was born at 29\(^\text{th}\) week of gestation as he had placental insufficiency. He needed resuscitation and suffered intraventricular hemorrhage in the early postnatal period. After ventricular drainage, he underwent ventriculo-peritoneal shunt implantation—initially, supratentorially; and later, infratentorially—because of the isolated and enlarged fourth ventricle. Altogether, he had undergone 33 interventions for various obstructive and infective complications. At
this visit, he was ambulant with retarded cognitive functions (developmental age, 3-4 years). He used to get recurrent partial complex seizures of temporal semiology. Cranial magnetic resonance imaging (MRI) scan revealed bilateral transtentorial herniation [Figure 1] with brachistem compression [Figure 2]. Herniated unci resulted in pressure gradient causing the isolation of the infratentorial subarachnoid spaces.[4] Possibly, he could survive the bilateral transtentorial herniation as there was no ischemic brainstem injury.[4] To the best of our knowledge, this is the first demonstration of such phenomenon in a living person.

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References


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