

Letter to the Editor

Frontal lobe signs after posterior fossa surgery: Is hypoperfusion ignored?

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Sir,

Behavioral manifestations constitute major burden of patients suffering from brain tumors.^[2] Cerebellar mutism syndrome, known to occur following surgery for posterior fossa tumors, is not commonly associated with behavioral symptoms.

A 12-year-old boy, diagnosed with posterior fossa mass lesion underwent ventriculoperitoneal shunt followed by definitive surgery. He developed acute mutism symptoms after the surgery and presented with hyperactivity, inattention, and inappropriate social behavior in the form of soiling and urinating in public. Single-photon emission computed tomography was performed 15 days after surgery

for these symptoms and it showed cerebral hypoperfusion in right frontal and thalamoganglionic regions [Figure 1].

Altered speech and other manifestations after posterior fossa surgery are often secondary to edema or hypoperfusion adjacent to the surgical trauma.^[4] Remote localized deficits after posterior fossa surgery are however not common, though crossed cerebello-cerebral diaschisis due to involvement of dentato-thalamo-cortical pathway has been occasionally reported.^[1] Some of these atypical remote presentations were described possibly due to vascular phenomena.^[3] However, extensive remote hypoperfusion as described above have not been reported much. Perfusion deficits in these atypical presentations indicate the impact of surgery on brain is more generalized than the operated area similar to the systemic nature of head injury.^[4] In addition, perfusion tests may not only help to evaluate patients with atypical postoperative symptoms, but also open up therapeutic avenues as well as for prognosis.

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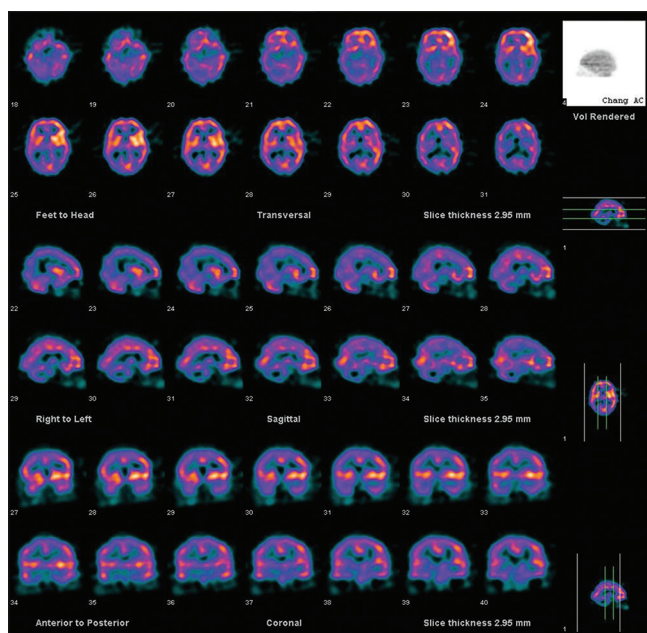


Figure 1: Brain single-photon emission computed tomography showing moderately reduced perfusion in right inferior orbitofrontal region, right lateral temporal, right thalamic, right basal ganglia, and bilateral occipito-parietal regions (right > left)

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Conflicts of interest

There are no conflicts of interest.

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