Hypertrophic Olivary Degeneration
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History
Routine surveillance in a teenage male with previously resected posterior fossa neoplasm.

Diagnosis
Hypertrophic Olivary Degeneration

Discussion
The Guillain-Mollaret triangle is formed by the dentate nucleus, the contralateral red nucleus and the contralateral inferior olivary nucleus. Disruption of the central tegmental tract results in ipsilateral hypertrophic olivary degeneration. Disruption may be initiated by hemorrhage, ischemia, trauma or surgery. When disruption occurs at the level of the dentate nucleus or superior cerebellar peduncle, the olivary changes are contralateral. Bilateral involvement occurs with lesions of the superior cerebellar peduncle and the central tegmental tract. T2 changes occur by 3 weeks after injury whereas hypertrophic changes can be delayed until 6 months. Hypertrophy rather than atrophy occurs because glial hypertrophy and gemistocytic astrocytic proliferation. Symptoms of hypertrophic olivary degeneration are largely related to palatal myoclonus (tremor).

Findings
MR -T2 prolongation in the bilateral olivary nuclei and enlargement of the left olivary nucleus.

Reference

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