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## Balance rehabilitation results in postoperative pontocerebellar corner tumor surgery patients: Case series

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**Purpose:** Approximately 5-10% of the intracranial tumors originate from pontocerebellar corner (PSC). Due to anatomical structure of PSC, it has compounds of the V, VII, VIII, IX, X and XI cranial nerves, and depending on the influence of these nerves, patients confronted with otological and neurological findings such as hearing loss, loss of balance, facial weakness and vertigo. The aim of this study is to investigate the effects of balance rehabilitation after pontocerebellar corner tumor surgery.

**Methods:** Three patients who underwent surgery for PSC tumor, including a 25-year-old female (Case-1), a 39-year-old male (Case-2) and a 52-year-old female (Case-3) were included in the study. Patients were taken to an 8-week rehabilitation program consisting of conventional balance exercises 3 days a week with a physiotherapist. Static and dynamic balances of patients were assessed by Biodex Balance System before and after treatment.

**Results:** Static and dynamic balance scores were recorded as worse than expected values calculated according to age, height and weight parameters before rehabilitation. In the post-rehabilitation evaluation, postural stability and stability limits test scores of 3 patients have been improved. Also patients have been reported to have improved daily living balance activities.

**Conclusion:** Static and dynamic balance losses may occur in patients due to presence of PSC tumor or the effect of surgery on the vestibular nerve. The improvement in the balance parameters obtained in the patients receiving the rehabilitation program confirms that rehabilitation program consisting of balance exercises should be given importance to patients with similar problems.

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