Subtotal Excision of Ventricular Central Neurocytoma

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Introduction:

Central neurocytoma is an intraventricular tumor that affects young adults. It has a favourable prognosis after adequate surgical intervention; however, an aggressive course may take place in some cases.

Objective:

To evaluate the rate of shunts and outcome of controls in central neurocytoma in total and subtotal excision.

Methods:

12 patients were included in this study and followed up to 24 months. Data collected includes: age, sex, clinical presentation, early morbidity and mortality, radiological findings (tumor location, features, residual, recurrence & hydrocephalus). All patients underwent surgery for total or subtotal excision through a transcortical approach. EVD is inserted then removed or replaced by a shunt. Histopathology and MIB index were used to confirm diagnosis and guide the follow up; adjuvant radiotherapy or Gamma Knife radiosurgery used for residual or recurrence.

Results:

Age of patients ranged from 14 to 48 years. 2 patients died early after total and subtotal excision from sepsis and thalamic infarction respectively. 6 patients (60%) had a total removal, 2 of them had a high MIB index and showed small recurrence at 12 months and 18 months and received Gamma Knife. 1 case needed a shunt, other 4 cases were free; a subtotal excision for 4 patients (40%). Early shunt was inserted for 2 cases, radiosurgery controlled 1 patient while radiotherapy used for 3 patients to control but failed for 1 who underwent a surgery at 18 months.

Conclusion:

Central Neurocytoma may be a favorable prognosis with less incidence of shunt insertion throughout its course than other intraventricular tumors if total removal is achieved.