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J. GORDON MILLICHAP, M.D., F.R.C.P., EDITOR

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BRAIN NEOPLASMS

MEDULLOBLASTOMA - PROGNOSTIC FACTORS

The prognostic factors and outcome of treatment of 58 patients with posterior fossa medulloblastoma seen from March 1965 through December 1984 were reviewed in the Division of Radiation Oncology at the Mayo Clinic. The median age was 17 years and males were affected more frequently than females in a ratio of 1.5:1. The most common initial signs and symptoms were those associated with increased intracranial pressure and cerebellar dysfunction: nausea and vomiting 91%, headache 86%, ataxia 77%, papilledema 69%, nystagnus 67%. The overall 5- and 10-year survivals were 50% and 33% respectively; 5- and 10-year relapse-free survivals were 46% and 32%. Surgical and postoperative radiation therapy failed in 34 patients (59%). A significant improvement in ten year survival was associated with a posterior fossa radiation dose of 50 Gy or more, whole brain irradiation, and spinal axis irradiation. Total compared to subtotal resection correlated with better 10-year relapse-free survival but not overall survival. (Garton GR et al. Medulloblastoma - prognostic factors and outcome of treatment: Review of the Mayo Clinic experience. Mayo Clin Proc Aug 1990; 65:1077-1086).

COMMENT. The dose of irradiation to the posterior fossa was one of the most important determinants of overall survival and relapse-free survival in patients with medulloblastoma. Doses of 50 Gy or more are associated with improved survival and local control. Total removal of the tumor when possible and irradiation to the supratentorial area of the brain and spine in addition to the posterior fossa are recommended. Chemotherapy with or without additional irradiation was used for recurrent medulloblastoma.

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