Abstracts

CR-21. VASCULAR ABNORMALITIES AFTER TREATMENT FOR CRANIOPHARYNGIOMA

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INTRODUCTION: Craniopharyngiomas occur in proximity to vessels of the circle of Willis, which may require manipulation in the course of surgical dissection. The tumors are frequently irradiated which may predispose to vascular abnormalities. We reviewed a large center's experience. **METHODS:** Records of the brain tumor program, spanning 21 years, were reviewed for patients with craniopharyngioma. Demographics, details of treatment, clinical

course, and results of imaging over time are described. **RESULTS:** 50 patients with craniopharyngioma were identified, 8 of whom were excluded for inadequate data. 42 patients were followed over a mean of 7.2 years after treatment, 17 of whom eventually were found to have vascular abnormalities. Of these patients, 2 had received craniotomy alone with no radiation. The remainder had radiation, 4 after failure of initial intracystic therapy and either with or without further operation. 11 were treated with operation, either craniotomy or endoscopic biopsy or resection, followed by radiation. 3 patients developed cavernous malformations, 9 patients had aneurysmal dilatation of one or more vessels, and 10 had vessel narrowing or occlusion, which in some was documented to progress. Mean time to identification of the first abnormality was 3.4 years after radiation, and 1.4 years after operation alone. 2 patients with moya moya syndrome after radiation required cerebral revascularization procedures. **CONCLUSION:** A substantial percentage of patients develop vascular abnormalities after treatment for craniopharyngioma. They require long term surveillance and possible late intervention. Follow up imaging must include specific attention to vessels of the circle of Willis with MR angiography.