The management of cystic craniopharyngiomas

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DISCLOSURES

I have nothing to disclose.
INTRODUCTION

Craniopharyngioma management is currently shifting from radical gross total resection (GTR) to a more microscopic and less traumatic approach. Cystic craniopharyngiomas are particularly suited for limited address of the cyst followed by adjuvant therapy.

This study evaluates the efficacy of various initial therapies on cystic craniopharyngioma in children.
METHODS

An IRB-approved retrospective analysis of 52 patients (25 females, 27 males, median age 8.17 years) who were diagnosed with cystic craniopharyngioma between January 2003 and July 2017 was performed. Patient demographics, tumor characteristics, and surgical management were analyzed for statistically significant influences on tumor recurrence and expansion.
RESULTS

Older children had an increased risk of recurrence (p= 0.006).
RESULTS

GTR showed significantly better progression free survival than subtotal resection (STR) (p = 0.01).

When compared to GTR, STR significantly contributed to radiographic tumor regrowth on MRI (p=0.045).
NON-SIGNIFICANT RESULTS

Radiation therapy did not produce significant outcome improvements (p = 0.685)
No treatment type for recurrence (GTR, STR + Cyst wall Fenestration, STR + cystic catheter, Cyst Aspiration, Radiation Therapy) was found to be significantly optimal.
DISCUSSION

Subtotal resection was a significant risk factor for tumor regrowth in patients and radiation therapy did not play a protective role in tumor recurrence. The data in this large series did not support one treatment type over another for recurrent cystic tumors. Prospective randomized trials comparing a larger population of recurrent craniopharyngiomas are warranted.
SUMMARY POINTS

- Our study cohort consisted of 52 patients (25 females, 27 males, median age 8.17 years)

- Older children (>10 y.o.) had an increased risk of recurrence (p=0.006).

- Gross total resection, as opposed to subtotal resection, showed significantly improved outcomes (p = 0.01)

- Subtotal resection was a significant contributor to tumor regrowth (p= 0.045).

- Radiation therapy did not show significant improvement in patient outcomes (p= 0.685).

- No optimal treatment types were found for cyst management.