
Surgical mortality and selected complications in 273 consecutive craniotomies for intracranial tumors in pediatric patients.

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Abstract

BACKGROUND: In order to weigh the risks of surgery against the presumed advantages, it is important to have specific knowledge about complication rates. Contemporary reports on complications following craniotomy for tumor resection in pediatric patients are scarce.

OBJECTIVE: To study the surgical mortality and rate of hematomas, infections, meningitis, infarctions, and cerebrospinal fluid (CSF) leaks, as well as neurological morbidity, after craniotomy for pediatric brain tumors in a large, contemporary, single-institution consecutive series.

METHODS: All pediatric patients (< 18 years) from a well-defined population of 3.0 million inhabitants who underwent craniotomies for intracranial tumors at Oslo University Hospital, Rikshospitalet, during 2003 to 2009 were included. The patients were identified from our prospectively collected database, and all charts were reviewed to validate the database entries.

RESULTS: Included in the study were 273 craniotomies, performed on 211 patients. Mean age was 8.5 years (range, 0-18). Follow-up was 100%. One hundred ninety-nine cases (72.9%) were primary craniotomies, while 74 cases (27.1%) were secondary craniotomies. Surgical approach was supratentorial in 194 (71.1%) and infratentorial in 79 (28.9%). Surgical mortality within 30 days was 0.4% (n = 1). Complication rates were intracerebral hemorrhage 0.4%, chronic subdural hematoma 1.1%, meningitis 1.8%, cerebral infarctions 1.5%, and postoperative CSF leak 7.3%. Neurological deficit rates were no change or improvement 87.2%, minor or moderate new deficits 9.5%, and severe new neurological deficits 2.9%.

CONCLUSION: Overall, the complication rates are low and compare favorably with similar data from adult series. The authors' data could be used as a baseline for future studies.

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MeSH Terms

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