

Intracranial meningioma surgery complications

2.6% of patients had a postoperative hematoma, 2.7% a postoperative infection, 3.9% a postoperative worsening of neurologic status; 5.4% of patients died during a 30-day period after surgery. Predictive factors of increased risk of postoperative complications were patient's age for the hematoma, a non-skull base meningioma for infection, and postoperative hematoma for the risk of neurologic worsening or 30-day mortality.

Conclusions: Early postoperative complications in meningioma surgery have a negative impact on patient survival and postoperative neurologic status, in a disease where survival is usually not limited by the meningioma itself. In this study, we identified risk factors for early postoperative complications, the identification of at-risk populations may help to prevent the occurrence of these risk factors ¹⁾.

Planning of modified protocols including intraoperative technical aspects, careful use of steroids antibiotics, and prophylactic low molecular weight heparin, and early mobilization is necessary for optimizing operative outcome of elderly patients ²⁾.

Delayed cerebral ischemia after meningioma resection

A systematic literature review was performed following the PRISMA statement, searching the PubMed, Medline and Cochrane databases using keywords and MESH terms related to "vasospasm/DCI and meningioma resection".

Results: In the studies retrieved in the literature, 5 cases of DCI after meningioma surgery were identified. The average age of patients was 52 years. The average onset time of DCI was 9.7 days. Clinical presentation was highly variable: hemiparesis (60%), confusion (60%) and/or aphasia (40%). Meningioma location was most frequently sphenoidal (60%). Most patients had vasospasm in multiple cerebral vessels, involving only the anterior circulation. Various management strategies were used: endovascular treatment (33.3%), antiplatelet therapy (50%) and/or nimodipine (40%). In terms of outcome, there were no deaths, but most patients had variable neurological sequelae (80%): aphasia, visual impairment, hemiparesis.

Conclusion: The systematic literature review and the present case of DCI following resection of an olfactory meningioma suggested that the main etiologic factors causing this rare pathology are: 1) intraoperative subarachnoid hemorrhagic contamination; 2) microvascular manipulation; 3) and possible dysregulation of hypothalamic function ³⁾.

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