



Outcomes of Craniofacial Resection in Elderly Patients: A 12-Year Review from Two Centres



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Introduction

Craniofacial resection (CFR) is often the first-line treatment for malignant sinonasal tumours. Although risks of surgery increase with age, elderly patients often undergo surgery. There are concerns as to whether craniofacial resection is safe in patients aged 70 or above. This study aims to compare the complication rate for patients aged 70 or above undergoing CFR to those younger, to assess the risks of this approach for the elderly.

Methods and Materials

A retrospective review of patients who underwent craniofacial resection was conducted at St Vincent’s Hospital Melbourne and Epworth Healthcare. The primary outcome measure was comparison of complications rates in patients aged 70 or above with the complication rates in younger patients. Complications included cerebrospinal fluid leak, meningitis, pneumocephalus, intracranial haematoma, cardiovascular events, pulmonary events, delirium, venous thromboembolism, blindness and infections. The secondary outcome measures were to compare the perioperative mortality rate and the length of stay of the two groups.

Results

Out of 83 patients who underwent craniofacial resection, 73 were included in this study. Of these, 45 patients were aged below 70 years. The rate of complication was 26.7% for surgery in patients below 70, while in the group aged 70 years or above the complication rate was 25.0%. There were no deaths as an inpatient or within 28 days of surgery for either age group. The median length of hospital stay was 12 days for the patients aged below 70, while it was 11 days for patients aged 70 or above.

Discussion

This study did not demonstrate an increased rate of complications in patients aged 70 or above undergoing craniofacial resection, when compared with those aged below 70. Advanced age alone should not be a contraindication to undergo craniofacial resection and instead the decision should be made with multidisciplinary consideration of individual patient factors, health status, patient preferences and medical comorbidities.

Table 1. Overview of complications

Complications	< 70 years (n=45)		≥ 70 years (n=28)		p value*
	Endoscopic	Open/hybrid	Endoscopic	Open/Hybrid	
Cerebrospinal fluid leak	2	4	1	4	0.599
Pneumocephalus	1	2	1	1	0.938
Intracranial haematoma	0	2	0	0	0.258
Meningitis	0	1	0	0	0.427
Blindness	0	0	0	1	0.202
Venous thromboembolism	1	1	0	0	0.258
Acute respiratory failure	0	1	0	0	0.427
Pneumonia/atelectasis	0	3	0	2	0.938
Cardiac events	0	1	0	1	0.731
Delirium	0	2	2	1	0.302
Cerebrovascular events	0	1	0	0	0.427
Flap injury/congestion	0	2	0	1	0.855
Wound/local infection	0	0	1	0	0.202
Total	4	20	5	11	0.750

* p <0.05 indicates statistically significant differences

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