



Aggressive Discharge Strategy Following Surgery for Intra-axial Brain Tumors

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Introduction

A steady trend in medicine has been discharging patients earlier after surgical procedures, a trend which has been resisted by many in the field of intracranial tumor surgery. Here we demonstrate the feasibility of an aggressive discharge strategy on postoperative days 1 or 2 for patients undergoing elective intracranial surgery

Methods

We conducted a retrospective analysis on all patients undergoing elective intracranial keyhole surgery for tumors, cysts, and other masses discharged on postoperative day 1 or 2 between January 2010 and December 2011. Patients were informed preoperatively of plans for discharge on postoperative day 1 or 2. For those meeting discharge criteria, we suggested they continue recovery at home and allowed the patients to decide.

Results

Of 213 patients, 81.6% had supratentorial lesions, 16.9% had infratentorial lesions, and 1.4% had lesions extending above and below the tentorium. High grade gliomas accounted for 38.5% of lesions. No deaths or readmissions for postoperative swelling or hematomas occurred within 28 days of surgery. Overall rate of patients who required readmission for postoperative complications was 4.2%. Readmission rate for repeat surgery addressing complications causing neurologic symptoms was 1.9%.

Conclusions

Our data suggest that the most serious complications occur within hours of the procedure, not days. The complications requiring readmission that we observed would not have been avoided with longer inpatient courses. Thus, consideration should be given to sending well-looking patients home to recover on postoperative days 1 or 2.

Learning Objectives

By the conclusion of this session, participants should be able to: (1) Discuss the pros and cons of early patient discharge.

Table 1. Patient Demographics

	Early Discharge	Standard Discharge	p Value
Patients	213	100	
Sex			0.54
Women	110 (52%)	56 (56%)	
Men	103 (48%)	44 (44%)	
Age (Mean ± SD)	44.3 ± 17.0	45.6 ± 16.6	0.59
Length of stay			
2 days	86 (40%)		
1 day	127 (60%)		
Pathology			
High grade glioma	82 (38%)	34 (34%)	0.45
Low grade glioma	52 (24%)	17 (17%)	0.15
Meningioma	28 (13%)	16 (16%)	0.69
Cerebral metastasis	22 (10%)	5 (5%)	0.13
Nerve sheath tumour	8 (4%)	13 (13%)	0.01
Intraventricular tumour	7 (3%)	6 (6%)	0.36
Others	14 (7%)	9 (9%)	0.34
Supratentorial vs. infratentorial			
Supratentorial	175 (82%)	82 (82%)	1.00
Infratentorial	35 (16%)	15 (15%)	0.89
Both	3 (1%)	3 (3%)	0.39
Intra-axial vs. extra-axial			0.10
Intra-axial	184 (86%)	79 (79%)	
Extra-axial	29 (14%)	21 (21%)	
Craniotomy number			0.39
First	88 (41%)	47 (47%)	
Re-operation	125 (59%)	53 (53%)	
Readmissions within 28 days	9 (4.2%)	4 (4.0%)	1.00