Implementation of a Daily Algorithm for Early Discharge after Brain Tumor Surgery: A Retrospective Cohort Study

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CNS 2018 ANNUAL MEETING
HOUSTON, TEXAS
OCTOBER 6-10, 2018

Introduction

The routine of postoperative patient care in specialized cancer centers has undergone significant advances in the last decades. Almost universally, the protocols adopted by hospitals have sought to reduce length of stay (LOS) after surgery through programs to improve the quality of care and optimize postoperative recovery. Recently, one neurosurgeon The routine of postoperative patient care in specialized cancer centers has undergone significant advances in the last decades. Almost universally, the protocols adopted by hospitals have sought to reduce length of stay (LOS) after surgery through programs to improve the quality of care and optimize postoperative recovery. Recently, our institution has adopted a daily algorithm for hospital discharge (DAHD). Thus, we designed a retrospective cohort study to evaluate whether there was a difference in LOS after the introduction the DAHD compared to the traditional postoperative management of patients who underwent brain tumor resection.

Methods

This is a retrospective cohort study. All consecutive patients who underwent brain tumor resection in 2017 by a single neurosurgeon were analyzed. Demographic and procedure-related variables, complications, and clinical outcomes within 30 days after surgery were collected and compared in patients before (pre-implementation) and after (post-implementation) the DAHD.

Results

61 patients who had been submitted to brain tumor resection were studied (pre-implementation 32, post-implementation 29). The baseline demographic characteristics were similar between the groups. After the DAHD implementation, LOS after surgery in days decreased significantly (median 5 versus 3 days; p=0.001). The number of patients who were discharged within day 1 or 2 after surgery was significantly higher after DAHD protocol (3.1% versus 44.8%; p<0.001). Major and minor complications rates, readmission rate, and unplanned return to hospital in 30-day follow-up were comparable between the groups.

Learning Objectives

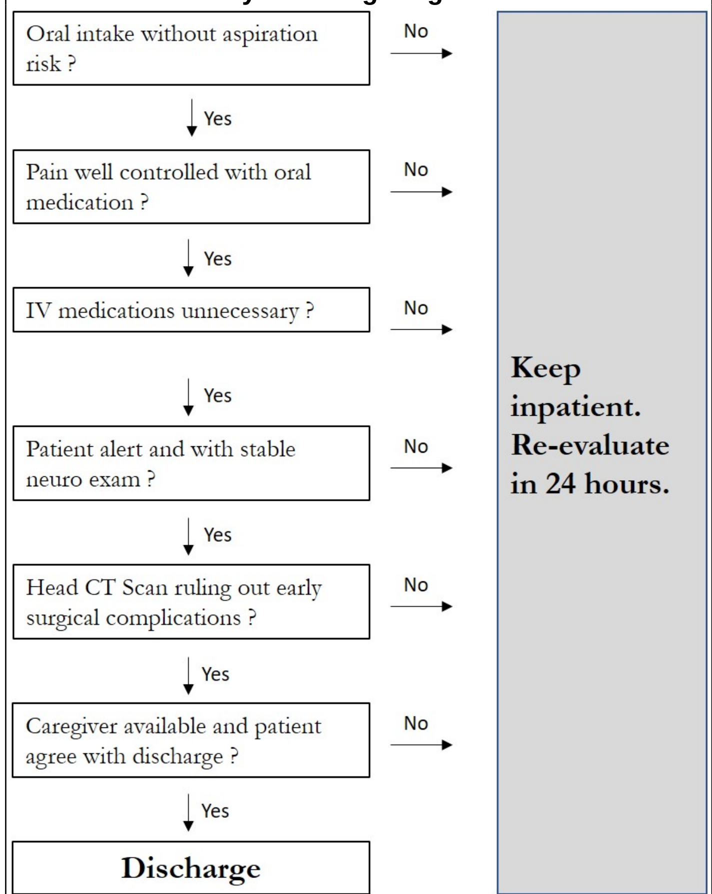
Implementation of a daily algorithm for hospital discharge reduced lenght of stay after brain tumor surgery.

Complication rates were comparable between the groups, suggesting that additional stay after postoperative day 3 may not reduce minor or major complications incidence.

Conclusions

Our results indicated a reduction of the LOS after the implementation of a DAHD compared to the traditional postoperative management (control group). The DAHD seems to be safe and cost-effective in patients after brain tumor surgery.

Early Discharge Algorithm



Daily Algorithm for Hospital Discharge (DAHD)