

Introduction

With the increasing number of large health care systems, many hospitals rely on a centralized inter-hospital transfer system to provide time-sensitive interventions for neuroemergencies. Treatment of intracerebral hemorrhage (ICH) at high-volume hospitals is associated with better outcomes, however inter-hospital transfer of such patients could lead to delays in treatment and worse outcomes. In this study we tried to ascertain the differences in outcomes of ICH patients who were transferred to or directly admitted from an emergency room to a comprehensive stroke center.

Methods

Two hundred eight patients diagnosed with ICH from December 2015 through November 2018 were retrospectively reviewed. The patients were then classified into two groups: inter-hospital transfer and direct admission. Primary outcome was hospital length of stay and secondary outcomes included NSICU length of stay, morbidity, and mortality. Analyses were performed using Mann-Whitney U and Shapiro Wilk Normality tests.

Results

Of 208 patients, 41.8% (n=87) were female, 76.4% (n=159) were transferred, and 23.6% (n=49) were directly admitted. The hospital length of stay for transfer patients was 20.7 days compared to 18.2 days for directly admitted patients (p=0.093). The NSICU length of stay mean for transfer patients was 8.25 days compared to 7.41 days for directly admitted patients (p=0.0016). Of all ICH patients, 11.1% (n=23) died over the course of the last three years including 10.1% (n=16) who were transferred and 14.3% (n=7) who were directly admitted.

Conclusions

There is a significant difference in NSICU length of stay between transfer and directly admitted patients in ICH. This could be because ICH patients who undergo inter-hospital transfers might be sicker or decompensate during inter-hospital transfer. Limitations of this study include a small number of direct admissions compared to transfer patients. A large prospective cohort study is needed to better elicit the effect of inter-hospital transfers on patient outcomes.

Learning Objectives

By conclusion of this session, participants should be able to: 1) Describe the importance of developing a protocol to improve quality, safety and efficiency of inter-hospital transfers and management of ICH patients. 2) Discuss, in small groups, the issues that patients and clinical teams face with inter-hospital transfers in ICH. 3) Identify an effective method for investigating the unique cohort of ICH transfer patients.

References