Should Elderly Patients 80 Years and Older Presenting with Acute Subdural Hematoma Receive Aggressive Surgical Treatment?

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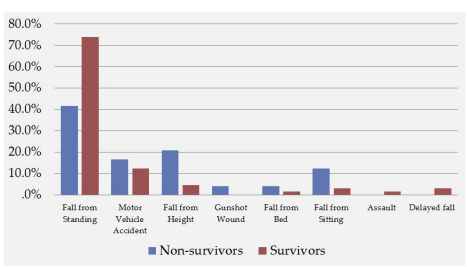
Introduction

With an aging and more active elderly population, acute traumatic brain injuries, in particular Acute Subdural Hematoma (SDH), are frequent. Management of these acutely ill patients remains a challenge. Should we aggressively treat all patients or are there any criteria in their medical history and presentation that can help us make these difficult decisions? We analyzed our Level I trauma database with the hope of answering these questions.

Methods

We retrospectively analyzed 109 consecutive patients 80 years and older who were admitted with acute SDH to our institution. Patients who were analyzed were registered in our department's trauma database from its creation in January 2000 through May 2012.

Results: Mechanism of Injury

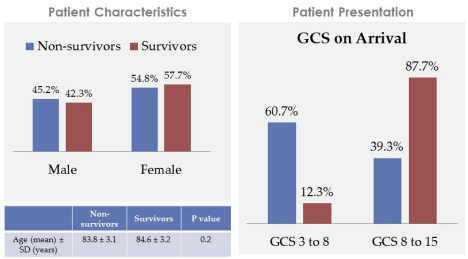


Results

One hundred and nine patients (43.1% male, 56.8% female) were admitted with an acute subdural hematoma. Twenty seven patients died in the hospital (24.7%). Five were discharged to hospice, for an overall mortality of 32/109 (29.3%). Differences between surviving and non-surviving patients included SDH width on initial imaging (9.7 mm vs. 15.2 mm), GCS on presentation (13.28 vs 6.9), time to surgery (49.73 vs 31 hours), concurrent broken bone (25% vs 40%), and pupillary reaction in the emergency room (surviving patients: 54/62 briskly reactive, 6/62 sluggish, 2/62 nonreactive; vs. non-surviving patients: 12/25 nonreactive, 3/25 sluggish, 10/25 briskly reactive). Factors which did not differ between surviving and non-surviving patients included number of days spent in the ICU, percent receiving anticoagulation (53% vs 61%), and percent with the following comorbidities: hypertension, diabetes, cancer, stroke, or coronary artery disease.

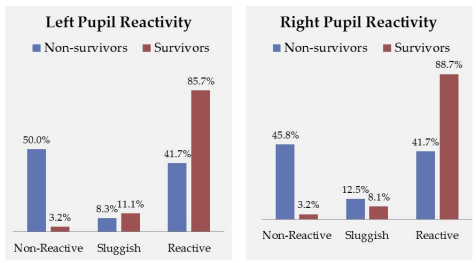
Results

Primary Outcome in 109 patients: - 75.2% survivors to home, rehab, or nursing facility
- 24.8% non survivors

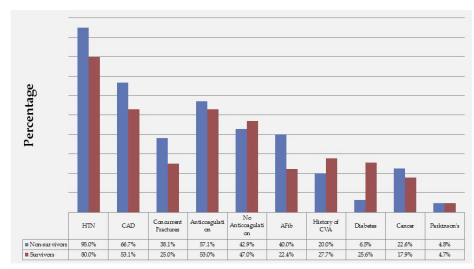


	Non-survivors	Survivors	P value
Age (mean) ± SD (years)	83.8 ± 3.1	84.6 ± 3.2	0.2

Results: Patient Presentation

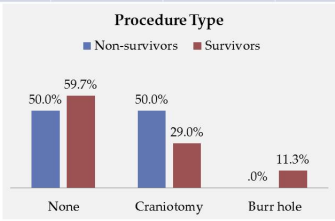


Results: Patient Co-morbidities



Results: Surgical Intervention

	Non-survivors	Survivors	P value
Time to Surgery (hours, mean ± SD)	26.7 ± 40.8	42.4 ± 96.2	0.420



Learning Objectives

By the conclusion of this session, participants should be able to: 1) Define the severity of the injury of the elderly patients; 2) Discuss the different treatment options for acute subdural hematoma; 3) Evaluate the impact of complicating comorbidities; and 4) Integrate patient-specific factors to formulate an individualized treatment plan.

Conclusions

Pre-existing comorbidities should not deter treatment of elderly patients presenting with acute SDH. With 70.3% of patients being discharged to home, acute rehabilitation, or a skilled nursing facility with hope for meaningful recovery, it remains appropriate to offer aggressive medical and surgical intervention if it is consistent with the patient and their family's wishes.

References

Taussky P, Hidalgo ET, Landolt H, Fandino J. Age and salvageability: analysis of outcome of patients older than 65 years undergoing craniotomy for acute traumatic subdural hematoma. World Neurosurg. 2012 Sep-Oct;78(3-4):306-11.