1342

SUBDURAL HEMATOMA IN THE SUPER-ELDERLY: MODERATE RANGE GCS PORTENDS POOR PROGNOSIS

Rachel Appelbaum[1], Matelin Crosen[2], Devon Haggerty[2], Jill Krystofinski[2], Malia Eischen[3], Joseph Stirparo[2], Rovinder Sandhu[2]

[1]Wake Forest Baptist Medical Center, Winston Salem, NC, [2]Lehigh Valley Health Network, Allentown, PA, [3]N/A, Honolulu, HI

INTRODUCTION: The purpose of this study was to evaluate the outcomes of super elderly patients, age greater than 80 years old, with isolated subdural hematomas (SDH) who presented with varying mentation as measured by GCS. We hypothesized that super elderly patients with a SDH and a GCS < 8 would have an overall poor prognosis (i.e. hospital, 30- and 60- day mortality, increased level of care at discharge).

METHODS: A retrospective chart review was conducted using the Trauma database out of our level 1 trauma center from December 2012 to December of 2017. The trauma database was evaluated for patients 80 years and older with an isolated SDH. To determine the relationship between risk factors and poor prognosis we built a multivariate logistic regression model.

RESULTS: Our trauma registry included 617 patients 80 years and older for this time period. The population was primarily Caucasian and the male to female gender was evenly distributed. The study group included 450 (72.9%) in the 80-89 group, 164 (26.6%) 90-99, and 3 (0.5%) of patients who were 100 years or older. The majority of the patients had an arrival and pre-trauma GCS of 13-15 and a moderate or serious injury based on ISS. Across all analyses, several factors emerged as dominant trends with poor prognosis and increased in-hospital mortality including GCS < 8, severe ISS, and warfarin. GCS < 8 had an Odds Ratio (OR) of 41.984 (95% CI 18.160-97.064) with p<0.001 and GCS 8-12 had an OR of 9.069 (95% CI 3.769-21.817) with p<0.001. Severe ISS (25-49) had an OR of 11.333 (95% CI 5.072-25.326) with p<0.001. Among the multivariate analysis for in-hospital mortality, GCS < 8 again was seen as a prognostic factor, OR 27.001 (95% CI 7.436-98.048) with p<0.001. The same trends for GCS < 8, severe ISS, and warfarin use were seen for the 30 - and 60 - day univariate and multivariate analysis of mortality.

CONCLUSIONS: As the US population ages, there is an increase in the number of geriatric patients requiring trauma care; however, the current “one size fits all” approach often neglects the special issues of the older adult. Across all analyses, several factors emerged as dominant trends including GCS < 8, severe ISS, and warfarin use. We hope that earlier, accurate prognoses will lead to improved discussion of goals of care and palliation when deemed fit.

1343

INFLUENCE OF SPLENIC AIS ON MANAGEMENT AND OUTCOMES?

Randeep Jawa[1], Isadora Botwinick[2], Poli Eksarko[3], Daniel Rutigliano[4], Marc Shapiro[5], Jerry Rubano[6], James Vosswinkel[7], Wei Hou[8]

[1]Stony Brook University School of Medicine, Stony Brook, NY, [2]N/A, Baltimore, MD, [3]N/A, Setauket, [4]N/A, Stony Brook, NY, [5]Stony Brook Medicine, Stony Brook, NY, [6]Stony Brook University Hospital, Stony Brook, NY, [7]Stony Brook University Medical State University of New York, Stony Brook, NY, [8]Stony Brook Medicine, Stony Brook, NY

INTRODUCTION: As non-operative (nonop) splenic injury management with or without angiography (angio) is increasingly emphasized, the question arises as to patient selection.

METHODS: 2013-2016 National Trauma Quality Improvement Project data were examined.

RESULTS: 74538 patients had AIS grade 2-5 splenic injury. The majority were managed nonop (67.3%), followed by splenic surgery (19.5%), angio (11.0%), and splenic surgery + angio (2.1%). Patients undergoing surgery or surgery + angio had higher ISS (26/29 vs 17/22), hospital LOS (15/9 vs 7/5 days), ICU LOS (9/5 vs 3/4), infectious (16%/9% vs 4%/6%) and other complications (62%/43% vs 26%/33%), and in-hospital mortality (15%/17% vs 6%/5%) as compared to nonop or angio, all p<0.0001. When stratified by increasing spleen AIS, frequency of nonop (70% AIS 2 to 2% AIS 5) and angio (35% AIS 2 to 5% AIS 5), decreased substantially. Rates of surgery + angio had a smaller decrease (31% AIS 2 to 18% AIS 5). The surgery rate was 25% AIS 2, 26% AIS 3, 28% AIS 4, 25% AIS 5. In multivariable analysis, mortality was associated with surgery (OR 2.48, p<0.0001), angio+surgery (OR 2.15, p<0.0001), head/neck AIS (OR 1.43, p<0.0001), extremity AIS (OR 1.10, p=0.0005), abdomen AIS (OR 1.09, p=0.007), chest AIS (OR 1.08, p=0.007), and age (OR 1.02, p<0.0001). Angio (OR 0.78, p=0.054) and face AIS (1.09, p=0.062) were not significant. In a separate model, substituting spleen AIS for abdomen AIS, splenic AIS was not a significant predictor (OR 1.04, p=0.29). By year, the nonop rate ranged from 66.5%-69.0%, angio (10.4%-11.8%), surgery (20.7%-18.6%), and surgery + angio (2.4%-1.3%), with a median spleen AIS of 2.

CONCLUSIONS: Surprisingly, splenic surgery rates had limited variation with splenic AIS. In contrast, nonop management and angio rates decreased substantially with increasing splenic AIS. Patients in the surgical arms (surgery alone or surgery + angio) had higher ISS and adverse outcomes (complications, LOS, mortality). In multivariable analysis, splenic surgery alone or splenic surgery with angio were the primary determinants of mortality, even after adjustment for AIS in multiple body regions or splenic AIS. Further investigation of the limited variation in surgical rates with splenic AIS and confounders is warranted.