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A Survey of Neurosurgeons: Does a Fate Worse than Death Mean Do Not Operate

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Introduction

Neurosurgeons make difficult decisions about what to do for neurotrauma patients with subdural hematomas. These decisions are difficult because prognostic data is poor, decisions are made quickly, and there are large emotional and financial costs. We surveyed neurosurgeons to better understand their attitudes about severe TBI.

Methods

Survey respondents were presented with two hypothetical patients with operative subdural hematomas and poor prognoses (93% poor outcome at 6 months by CRASH calculator). We asked whether they would recommend craniotomy or non-operative management including comfort measures and questions about health states (Halpern 2016) and responsibility/obligation to offer craniotomy in the setting of poor prognosis. Associations between treatment decisions and question responses were assessed using Fischer Exact or multinomial logistic regression analysis.

Results

139 neurosurgeons at the CNS Annual Meeting 2017 responded. The majority of neurosurgeons recommended craniotomy for both patients. The percentage of neurosurgeons responding health state was worse than death was: 2% incontinence, 47% rely on breathing machine, 19% cannot get out of bed, 29% confused all the time, 8% rely on feeding tube, 28% need 24-hour care, 13% live in nursing home. There was no significant association between thinking a health state was worse than death and craniotomy recommendation. The majority of neurosurgeons, 82%, agreed that they were willing to not offer surgery despite impending death, 35% agreed they were obligated to offer surgery regardless of prognosis, and 35% agreed they were responsible if a patient survives in a fate they would find unacceptable after a surgery they recommended. There was no significant association between response to these questions and treatment recommendation.

Conclusions

Neurosurgeon opinion of health states that are worse than death and responsibility/obligation to operate vary but in this study, did not correlate with treatment recommendation in which the majority of neurosurgeons recommended craniotomy.

Learning Objectives

By the conclusion of this session participants should be able to 1) Discuss the variability in neurosurgeon response to health states worse than death 2) Discuss surveyed opinions of neurosurgeons about obligation and responsibility to operate in the setting of severe TBI and poor prognosis 3) Understand reasons why these opinions may not correlate with decision to operate and why craniotomy is the most common treatment choice despite poor prognosis

References

Rubin EB BA, Halpern SD. States Worse Than Death Among Hospitalized Patients with Serious Illnesses. JAMA Intern Med. 2016;176(10):1557-1559.

http://www.trialscoordinatingcentre.lshtm.ac.uk/Risk%20calculator/index.html. Accessed 2017.

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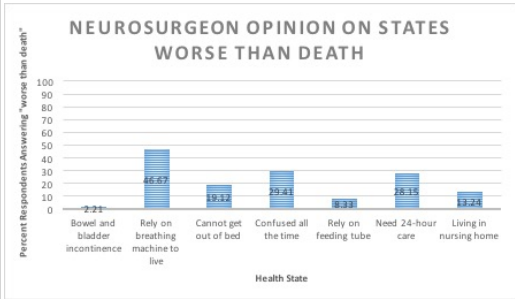
Neurosurgeon Opinion on States Worse than Death



Neurosurgeon Responses to Questions on Responsibility/Obligation to Offer Craniotomy in Severe TBI

	Recommend surgery but shouldn't have	Did not recommend surgery but should have	Responsible if a patient dies within 30 days of surgery	Responsible if a patient survives in an unacceptable state	Willing to not offer surgery	Obligated to offer surgery
Strongly Agree	13.0	3.7	8.0	9.4	49.6	9.5
Agree	41.7	21.9	12.4	25.4	32.9	15.3
Neutral	17.3	21.2	16.1	22.5	3.7	10.2
Disagree	22.3	42.3	38.7	28.3	9.5	36.5
Strongly Disagree	5.8	11.0	24.8	14.5	4.4	28.5