Geriatrics Journal Club

Video decision support tool for advance care planning in dementia: randomized controlled trial


Dr. Wallace presented this article in light of the recent “death panel” rumors rampaging the country at town-hall meetings...
Numerous studies have been conducted that address the association of alcohol’s complex effects on health and mortality. Twelve studies were cited that confirmed the U-shape association between alcohol consumption and mortality. Most studies collect the traditional risk factors but not such monstrous ones as detailed socioeconomic status and functional limitations.

**Hypothesis:** The survival benefits associated with moderate alcohol intake may be explained by accounting for two confounders: socioeconomic status and functional limitations.

**Methods:** Subjects were from the Health and Retirement Study wave two. Telephone interview data were collected in 2002 from subjects 55 years and older. Of the 15,071 interviewed, the final sample of usable surveys was 12,519. The main outcome for the study was death by 2006. Three questions on the interview were about alcohol intake. Responses to earlier waves of data collection in 1998, 2000, and 2002 were considered for the alcohol data. Functional limitations included five activities of daily living (bathing, dressing, eating, transferring, and toileting), five instrumental activities of daily living (shopping, preparing meals, using the telephone, managing medication, and managing finance), and walking. Socioeconomic status included highest level of education, income from employment, social security, pensions, retirement account distributions, and other sources. Wealth was also determined by summing assets, such as real estate, vehicles, retirement, bank accounts, Treasury bills, and bonds. This sum then subtracted the debts, such as mortgages and loans. Other traditional risk factors were included in the data analyses. Data analyses included maximum likelihood estimation multivariate logistic regression. Consideration for residual confounding was taken into account, and a propensity score analysis comparing nondrinkers with moderate drinkers was conducted.

**Results:** Findings indicated that moderate drinkers, those who had one drink per day, had a more-favorable risk factor profile, with higher socioeconomic status and fewer functional limitations. Moderate drinking versus no drinking after adjusting for demographic risk factors was strongly associated with less mortality (odds ratios = 0.50, confidence interval = 0.40–0.62).

**Conclusions:** Results were similar to earlier studies with moderate drinkers having better risk factor profiles than nondrinkers.
Prevalence and characteristics of traumatic intracranial hemorrhage in elderly fallers presenting to the emergency department without focal findings


Introduction: Eight percent of elderly visit emergency departments (ED) annually because of fall-related injury. Ten percent of those falls result in Traumatic Brain Injury (TBI). Elderly are prone to TBI because of cerebral atrophy, adherent dura to skull, and friable perforating vessels. Results on the effect of warfarin in patients with head trauma are inconsistent.

Research questions:

1. Does anticoagulation pose a greater risk of intracranial hemorrhage (ICH) in elderly presenting with falls and no focal neurological signs?

2. What is CT scan yield in these cases, and are there predictive factors for ICH to guide CT use?

Methods: This was a retrospective cohort study of consecutive patients 65 years of age and older who fell, were seen in ED and had head CT scan:

- 500 original patients – 404 qualified
  - 22 had neurological finding
  - 62 had inadequate information
  - Obvious penetrating skull injury or depressed skull fracture were excluded
- Reviewed electronic medical records and CT scan reports (warfarin exposure)
- A positive CT scan with evidence of ICH was the primary outcome variable

ICH included: subdural, epidural, intraparenchymal and subarachnoid.

Statistical Analyses: T-tests for continuous and chi-square for discrete variables. Multivariate logistic regression for variables independently associated with ICH.

Results: Forty-seven (11.6%) had ICH.

- 32 subdural
- 7 subarachnoid
- 7 intraparenchymal

Characteristics of faller with and without ICH shown in Table 1, Page 1472 (univariate analyses). Residence at home and head trauma were associated with ICH (OR~3). Seventeen percent of patients with ICH were on warfarin v. 20% of those without ICH (see Table2, page 1472). Multivariate analyses showed head trauma and home
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residence >3x risk of ICH, patients who were taking aspirin were half as likely to sustain an ICH, and aspirin use OR is 0.49 for ICH. Follow-up on 71 patients on warfarin with ICH: only seven had repeat CT scan, and all were negative.

Discussion:

- Conflicting data in literature about association between anticoagulation and traumatic ICH
  - Similar % in this study with ICH with or without being on warfarin
- MEDLINE review showed risk of subdural hematoma from falling was small. Need to fall about 300 times in a year for risk of anticoagulation to outweigh benefits of stroke prevention in patients with atrial fibrillation.
- Elderly living at home are more mobile and at risk for greater impact trauma.
- Patients taking aspirin were half as likely to sustain ICH. Question if they are more likely to come to ED, and ASA prevents ischemic strokes. Post study, no difference in ICH between ASA and non ASA treated patients with head trauma.
- Ask patients about wishes for interventions: “Do not CT.”
- Possible that referring physicians decided not to anticoagulate those patients at greater risk of ICH.
- Question if high-risk group more likely to be sent to ED for heat CT scans.
  - However, almost all (93.5%) elderly fallers undergo head CT scans at Beth Israel Deaconess Medical Center.

Conclusion: Be suspicious of ICH in elderly presenting to ED after falls regardless of anticoagulation status. 11.5% of elderly fallers without focal findings had acute ICH. In patients with an INR in therapeutic range or below, the use of warfarin did not appear to be associated with ICH.