May 8th, 10:30 AM - 12:00 PM

Traumatic Brain Injury: Translation from Animal Models and Genetics to Improving Outcomes

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Presenter Information
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Traumatic Brain Injury
Translation from Animal Models and Genetics to Improving Outcomes

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Traumatic Brain Injury (TBI) is due to a sudden forceful, mechanical injury to the brain.

TBI Type

- Blunt/Closed
- Penetrating
  - Gun Shot Wounds
  - Shrapnel
The severity of TBI is determined by the Glasgow Coma Scale on presentation.

Jennett and Bond Lancet 1975
Traumatic Brain Injury is a real public health problem in the U.S. (and worldwide).

Appr. 1.7 million Americans sustain a TBI annually

- 52,000 Deaths
- 275,000 Hospitalizations
- 1,365,000 Emergency Department Visits
- ??? Receiving Other Medical Care or No Care*

From: http://www.cdc.gov/traumaticbraininjury/statistics.html

- 25% of these are moderate-severe TBI.
Falls and motor vehicle accidents are the most common causes of adult TBI.

- Falls are the leading cause of TBI
- Fall-related TBIs among older adults aged ≥75 years is increasing

Among all age groups, motor vehicle crashes and traffic-related incidents result in the largest % TBI-related deaths (31.8%).
Long-term effects and poor outcomes require research to improve outcomes and develop new therapies.

Direct medical costs and indirect costs (lost productivity) of TBI:
~ $76.5 billion in the U.S. in 2010

From: http://www.cdc.gov/traumaticbraininjury/statistics.html