



American Academy of Forensic Sciences Meeting Highlights

Chicago, 2011

Is back surgery related to overdose?





Christina J. Tatum, MD (Alabama)

- Identified decedents with a surgical scar over the midline of the back
- Decedents with a back scar were 13 times more likely to die of overdose than another body without a scar

Jet Ski Passenger deaths



Dennis Rhee, MD (Dallas)

- ❑ Severe laceration of anus and vagina resulted in the death of a young woman, she was passenger and fell off the moving jet ski
- ❑ Thought to be impalement
- ❑ Thrust of the jet ski caused injury
- ❑ Driver not at risk because throttle turns off automatically when driver falls off

Drowning and Bacteria

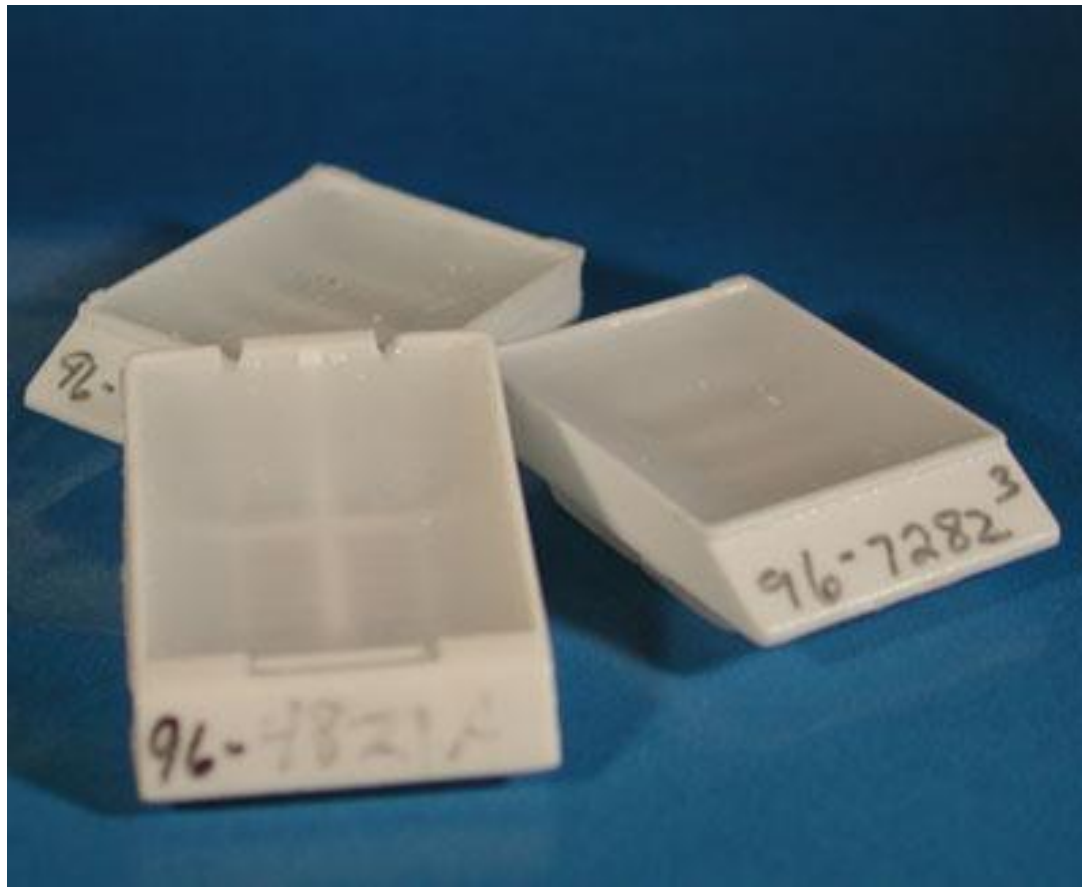




Pistolesi Luca, MD Italy

- ❑ Small number of drowning deaths (10) versus 10 controls
- ❑ Some oceans, some freshwater
- ❑ Cultured blood, peripheral and central
- ❑ All drowning victims had bacteria reflective of their water environment
- ❑ Controls were negative

DNA extraction from Paraffin blocks



Which paraffin blocks should you pick? (Alex John, MD, Harris county)

- ❑ More fixation (formalin time) = more degradation of DNA
- ❑ Fresh bodies—send block with spleen
- ❑ Decomposed bodies—send blocks with liver and spleen plus muscle, if available
- ❑ If non-fixed tissue is available, in decomp, muscle is good

Retinal hemorrhages in infants





Peripheral Retinal hemorrhages Associated with Wedging (Stephen Lenfest, MD, Wake Forest)

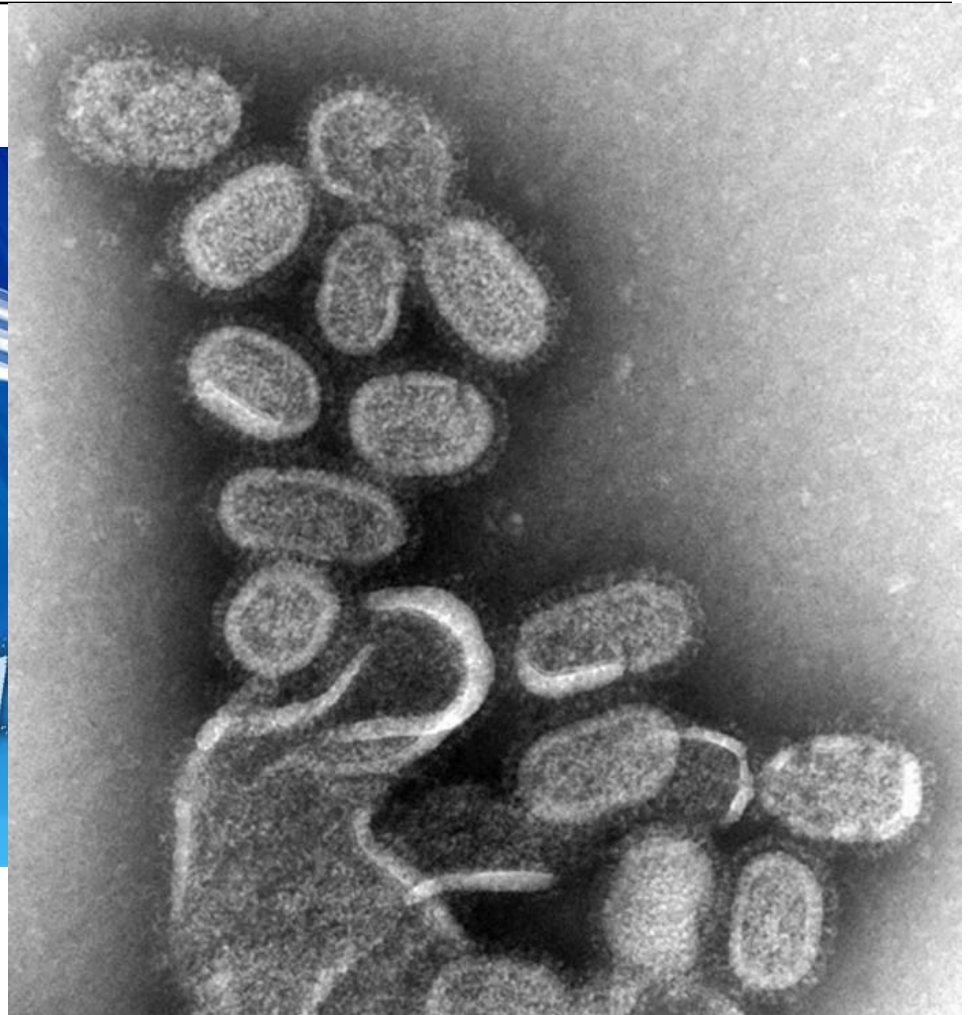
- 4 month old wedged between mattress and headboard. RHs extending to ora serrata
- 6 month old wedged between mattress and wall. RHs to ora serrata



Peripapillary Intrascleral hemorrhages, pathognomonic of abuse?
(Candace Schoppe, MD Wake Forest)

- ❑ 2 infants delivered by emergency cesarean after mothers in MVAs
- ❑ Both mothers had pelvic fractures
- ❑ Both infants had skull fractures
- ❑ Infants with flame-shaped hemorrhages radiating from optic nerve

H1N1 Fatalities



Erin Brooks, MD (Fatalities in New Mexico)

- Rapid Disease Course (14/52 autopsied) 3.5 days
- In 75% H1N1 was not known to be the cause of death until autopsy performed
- Alveolar edema most common (75%), not DAD (16%)
- Native Americans overly represented

Hanging Deaths





Ahmet Hilal, MD (Deaths in Turkey)

- Data actually including hanging deaths and strangulation deaths
- 35% (of 170 total cases) had no internal findings in neck, only skin lesions

Study of non-lethal filmed hangings

Aenny Sauvageau, MD (Canada)

- 4 minutes is traditionally used as the time to death in asphyxia
- Rapid loss of consciousness 10 seconds, mild generalized convulsions 4 seconds, decerebrate rigidity 19 seconds, deep rhythmic abdominal respirations 19 seconds, decorticate 38, loss of muscle tone 1 minute 17, end of breathing 2 minutes, last muscle movement 4 minutes
- S and M video, recovery after 40 seconds

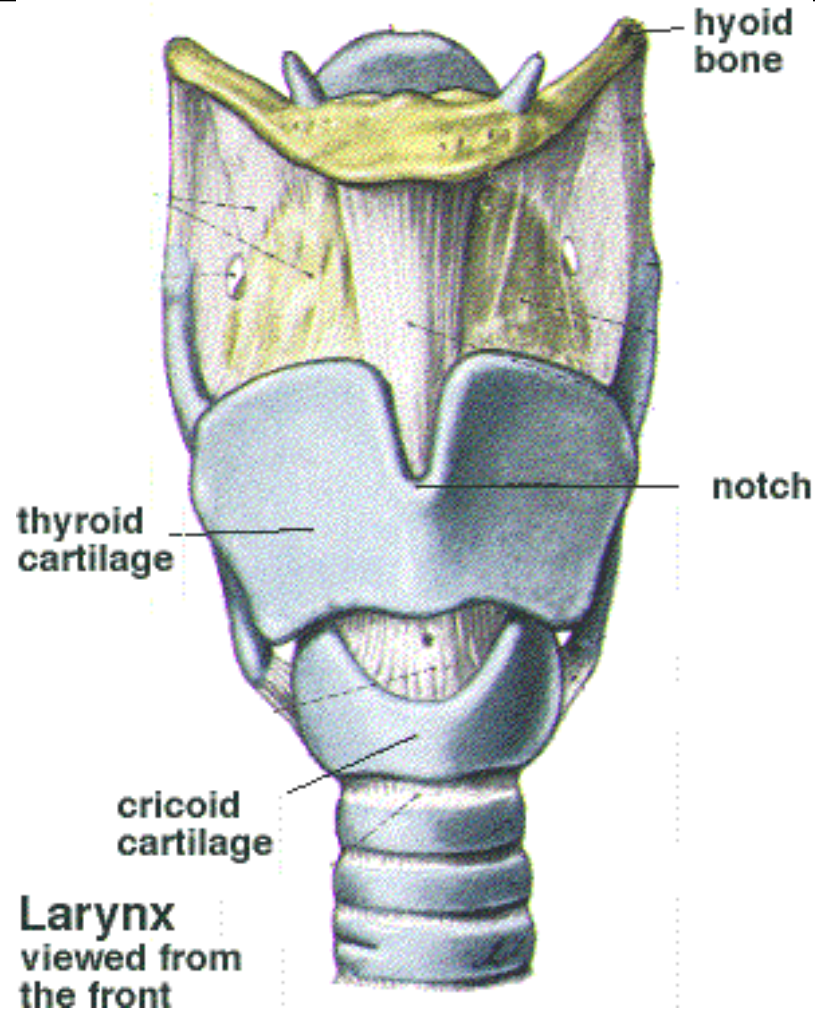
Limb lesions in hanging

Anne Desjarlais, Montreal

- Usually back of arms, anterior legs, not both
- 6% had bruises, 5% abrasions
- Be careful: anterior forearms, posterior legs, both arms and legs—statistically more indicative of homicide by strangulation

Thyroid Cartilage—Triticea cartilage

Joao Pinheiro, Portugal



Adrenal Hemorrhage—Waterhouse-Friderichsen Syndrome—Lee Tormos MD, South Carolina





Adrenal Hemorrhage

- ❑ Classic is meningococemia
- ❑ 4 cases in 800 autopsies
- ❑ Staphylococcus aureus, Streptococcus pneumonia, Pseudomonas, yeast

Fentanyl redistribution postmortem

Clarissa Krinsky, MD New Mexico





Redistribution and lab variation

- Marked variation in measured concentrations between samples drawn at different times and sites
- Marked variation in measured concentrations in duplicate samples sent to two different labs

Animal Hair at Crime scene and DNA Atlanta Child Murders—Wayne Williams

- ❑ Atlanta Child Murders
- ❑ July 1979-May 1981
- ❑ Found dog hairs
- ❑ Linked to Sheba

