Acute Global Anoxic Brain Injury

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The biggest stroke you can have... Walter Koroshetz
- NETT focus is a neurological emergencies
- Circulatory arrest and subsequent global cerebral anoxia is a major public health problem for emergency physicians.
- Out of hospital cardiac arrest causes 300,000 deaths per year in US
- Survivors are often devastated with cognitive and physical disability
Cortical, caudate putamen and hemispheric infarct volumes (% contralateral hemisphere) in male Sprague-Dawley rats treated with 0 (n=7), 8 mg/kg (n=6) progesterone, and 8 mg/kg (n=5) allopregnanolone i.p. 5 min prior to reperfusion followed by s.c. injection 4h post-reperfusion. All values are mean ± SD.

Progesterone treatment delayed for 6h after injury substantially reduces infarct size.
PROGESTERONE DECREASES DIRECT INJURY VOLUME AFTER pMCAO (Intraluminal suture method)
- Determine whether IV Progesterone reduces long term disability from anoxic injury to the brain
- Phase II-III Adaptive design
- Define an optimal dose and duration
- Out-of-hospital cardiac arrest PROG vs. Placebo
- Exception From Informed Consent
- Initial bolus pre-hospital setting
- Initiating study drug infusion within 30 minutes of the onset of circulatory
- The primary outcome measure - proportion of patients with pre-arrest modified Rankin Score (mRS) of ≤1 who achieve an mRS score of 3 or better (moderate disability, slight disability or no disability) at 6 months.