Statin therapy after stroke: Discussion of results of the Treat Stroke to Target Trial

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Lipid control after stroke:  
State of the science

- **SPARCL trial (2006)**
  - 16% RRR in primary outcome of fatal/non-fatal stroke
  - Limited by single statin, single dose
  - No adjustment based on lipid or other levels
  - Increased risk ICH
  - Uncertainty over how low to go

- **Secondary analyses of other studies (WASID, SAMMPRIS)**
  - Some evidence that an LDL target of <70 mg/dl reduces stroke among those with intracranial atherosclerosis

- **Persistent concern regarding increase in risk of ICH with very low LDL**
Treat Stroke to Target Trial

- **Population:** 2873 patients with ischemic stroke/TIA with evidence of atherosclerosis; from France and Korea
- **Intervention:** target LDL 100 + 10 mg/dl vs. LDL <70 mg/dl
- **Primary endpoint:** Composite of stroke, MI, revasc. UA or TIA, vascular death
- **F/u:** median 3.5 years
- **Results:** 22% RRR, p=0.036; ARR 2.5% (10.9 to 8.4%)
  - 13% RRR for stroke/TIA
  - 36% RRR for MI/coronary revasc
  - 38% increased risk ICH
  - 20% RRR 1° outcome/ICH (HR 0.80, 0.63-1.00)
Limitations and questions for the future

- **Methodological issues:**
  - Recruitment/Fewer outcome events than planned
  - Unblinded
  - Multiple medications/doses

- **Conceptual issues**
  - What is “stroke with atherosclerotic disease”?
    - Lacunar / small vessel disease
    - Atrial fibrillation
    - Young patients with PFO/dissection/hypercoagulable states/other uncommon etiologies
  - Dependence on baseline lipids

- **Incidental (“silent”) infarcts**

- **ICH patients**

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