MEET 2015 - Nice

Emergency Management: How to Handle Evolving Stroke

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Nothing to disclose in regard to this presentation
What happens in acute cerebral artery occlusion?

Normal blood supply
60ml/min/100g brain tissue

Loss of neurocyte function
20ml/min/100g brain tissue

Neurocyte death
12ml/min/100g brain tissue
What happens in acute cerebral artery occlusion?

2 Mill. neurocytes die per minute

Core of dead tissue usually dies within 30 min

Transitional area at risk - penumbra - survives for some hours
Collateral Flow

- Leptomenigeal arteries
- Cross perfusion from internal system
- Cross flow from opposite side
- Anterior/posterior circulation
Consequence?

- Logistics
- Door to CT to needle time
- Bridging i.v. thrombolysis
- Thrombectomy
There is more than one cause for stroke symptoms ...

<table>
<thead>
<tr>
<th>Intracerebral hemorrhage</th>
<th>SAH</th>
<th>Ischemic stroke with hemorrhagic transiuion</th>
<th>Subdural hematoma</th>
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![Images of brain scans corresponding to each condition]
Two Types of Occlusion

Carotid-T occlusion  Carotid bifurcation occlusion
Carotid-T Occlusion

Guidewire & Microcatheter cross the occlusion

Guidewire is removed and stent retriever placed in the microcatheter
Carotid-T Occlusion

J. B. m-52  Hemiplegic for 6 hrs  Before and after TE
Acute Carotid Occlusion

CT-Angio 4w after CAS & TE
Technical success in 98% of studies
Primary outcome in 96% of studies
TIMI>2 in 77% (range 25-96%)
Stroke Severity

- Reported in 8281 pts.
- Mean NIHSS 17 (range 13-22)

Good Recovery

- Reported in 4490 pts.
- mRS at 90 d <2 in 44% (15-54%)
Conclusions

- early recanalization dramatically improves outcomes
- functional imaging more important than time window
- fast door to CT to Angio time must be achieved (< 1 h)
- invasive stroke tx can be increased from 5 to 20% of the patients!
...we have to organize the logistics!