Urgent Carotid Intervention in patients with mild to moderate strokes is associated with improved functional independence on discharge

How long after a stroke should a patient undergo CEA?

How about for CAS?

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Carotid-related stroke severity and neurologic outcome

↑ Stroke severity (NIHSS) is associated with poor neurologic outcomes (mRS) in patients undergoing urgent CEA / CAS following acute TIA/stroke

Knowledge gaps regarding urgent CEA or CAS with respect stroke severity and neurological outcome
Admit NIHSS ≤ 10 and time to CEA > 48h are associated with neurological functional independence (mRS ≤ 2).

Admission:
- NIHSS ≤ 10: 90% discharged mRS ≤ 2
- NIHSS > 10: <45% discharged mRS ≤ 2

Days to procedure:
- > 10: <60% discharged with mRS ≤ 2
- ≤ 10: >60% discharged mRS ≤ 2

Days to Procedure ≤ 2: 3.4x (P=.0007)

Odds of being discharged with mRS > 3 (functional dependence)
Admit NIHSS > 10: 5.6x (P=.0029)

Days to Procedure ≤ 2: 3.4x (P=.0007)

CEA or CAS in acute stroke?
Best mode of neuroprotection for patients with unstable/vulnerable carotid plaques?

CEA under GETA / Short use
Short use: mRS ≤ 2

CAS with proximal
Precise Occlusion
Flow Reversal

Odds of being discharged with mRS > 3 (functional dependence)
Admit NIHSS > 10: 5.6x (P=.0029)

Days to Procedure ≤ 2: 3.4x (P=.0007)

Urgent carotid interventions in acute stroke
For carotid-related stroke patients presenting without fluctuating symptoms (cTIAs, SIE)

Timing and stroke severity (initial NIHSS) are associated with a greater chance of patient being discharged with neurological functional independence (mRS ≤ 2).

- Odds of being discharged with functional independence (mRS ≤ 2)
  - If CEA/CAS is done, 65% vs 35% (P=.0007) more likely to have discharge functional dependence (compared to CEA/CAS > 48h)
  - Admit NIHSS ≤ 10: 3.4x (P=.0029) more likely to have discharge functional dependence (compared to patients with admit NIHSS > 10)

It is safer to wait 48 hours from the ischemic event for an acute carotid intervention and NIHSS ≤ 10 appears to have best chance of discharge with neurological functional independence (mRS ≤ 2).

Thank you.