10 years of stroke intervention: how far we've come

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Content objectives:

1. Identify thrombectomy as a procedure with strong clinical benefit and evidence base
2. Describe the type of stroke that benefits from a thrombectomy procedure
3. Describe the basic mechanisms for a thrombectomy procedure

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Content summary:

1. Comparison of number needed to treat in order to prevent one negative outcome
    a. 2015, 2018 stroke trials = NNT 2.6 – 3.6
    b. 2023 stroke trials = 5.4-14.3
    c. Percutaneous coronary intervention for acute myocardial infarction = 45-90
    d. Summary = Highly effective and should be offered to all eligible patients

2. Eligible patients: Current Level A evidence, updated 2023
    a. Endovascular intervention is superior to medical therapy alone for patients with:
        i. No intracranial hemorrhage
        ii. Pre-stroke mRS of 0 or 1 (Minimal or no problems prior)
        iii. Acute ICA or M1 occlusion ("Large vessel occlusion")
        iv. Presenting within 24 hours of onset
        v. With ASPECTS of three or greater (large volume of brain still preserved)

3. Thrombectomy procedure
    a. Supine position in angiography suite
    b. General anesthesia or moderate sedation
    c. Radial or femoral arterial access
    d. Navigate from the access site -> aorta -> affected carotid artery -> site of occlusion
    e. Aspiration, stent-retriever, or combined. Multiple passes may be required.
    f. Closure of access site