

TCT 2017



Denver

***Is Intervention for
Asymptomatic Carotid Stenosis
Indicated Given Modern Medical
Management?***

No, the Data Are Clear !

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Disclosure Statement of Financial Interest

Within the past 12 months, I and my spouse have had no financial interest, arrangement or affiliation with companies or organizations. listed below.

Nothing to disclose

Asymptomatic carotid artery stenosis is a significant health concern

U.S. data 2005

carotid revascularizations	135,701
asympt. carotid artery stenosis	122,986
	92%

J.T. McPhee et al.: Carotid artery stenting has increased rates of postprocedure stroke, death, and resource utilization than does carotid endarterectomy in the United States, 2005. J Vasc Surg 2008;48:1442-50

What is the Risk of ACS ?

4319 patients with BMT Stroke Incidence

❖ 1 year	0.4%
❖ 5 years	1.6%

Includes patients with cardiogenic embolization and cerebral artery disease.

A. G. den Hertog et al.: Asymptomatic carotid stenosis could benefit and the risk of ischemic stroke according to subtype in patients with clinical manifest arterial disease. SMART Study Group. *Stroke* 2014;45:3720-4

Why is Invasive Treatment not Indicated ?

**No symptoms ...
No embolization**

***BMT stabilizes plaques,
especially statins!***

Statins Reduce Neurologic Injury in Asymptomatic Carotid Endarterectomy Patients

Eric J. Heyer, Joanna L. Mergeche, Samuel S. Bruce, Justin T. Ward, Yaakov Stern, Zirka H. Anastasian, Donald O. Quest, Robert A. Solomon, George J. Todd, Alan I. Benvenisty, James F. McKinsey, Roman Nowygrod, Nicholas J. Morrissey and E. Sander Connolly

Stroke. 2013;44:1150-1152; originally published online February 12, 2013;

328 pts with ACS

Stroke rate

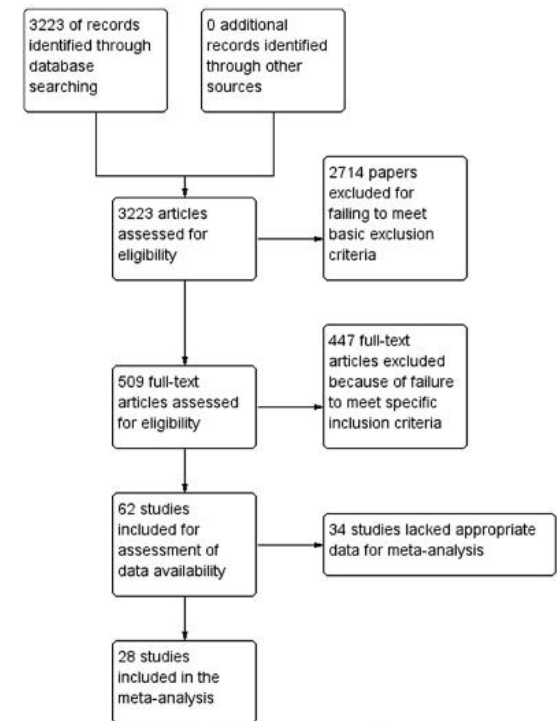
❖ with statins	0.0%
❖ without statins	3.1%

Why is Invasive Treatment not Indicated ?

TCD study and meta-analysis

TCD positive stroke risk 7.1%

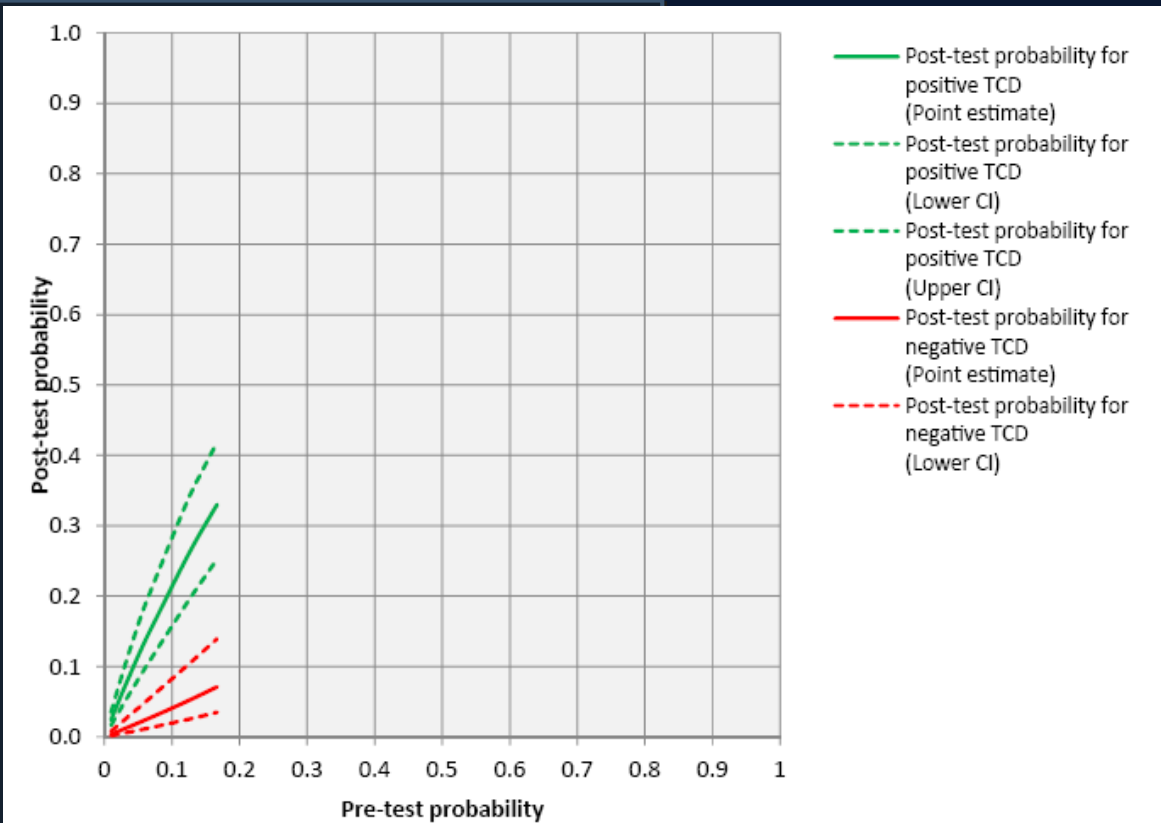
TCD negative stroke risk 1.2%



L.M.J. Best et al.; Transcranial Doppler Ultrasound Detection of microemboli as a predictor of cerebral events in patients with symptomatic and asymptomatic Carotid disease: a systematic review and meta-analysis. *Euro J Vasc Endovasc Surg* 2016;52:565-580

Why is Invasive Treatment not Indicated ?

No overlap of curves - statistically significant



L.M.J. Best et al.; Transcranial Doppler Ultrasound Detection of microemboli as a predictor of cerebral events in patients with symptomatic and asymptomatic Carotid disease: a systematic review and meta-analysis. Euro J Vasc Endovasc Surg 2016;52:565-580

Why is invasive Treatment not indicated ?

Hemodynamic stroke is a rarity.

Circle of Willis secures cerebral blood supply!

Invasive Treatment of ACS ?

Abbott AL. Medical (nonsurgical) intervention alone is now best for prevention of stroke associated with asymptomatic severe carotid stenosis: results of a systematic review and analysis. *Stroke*. 2009;40:e573–e583.

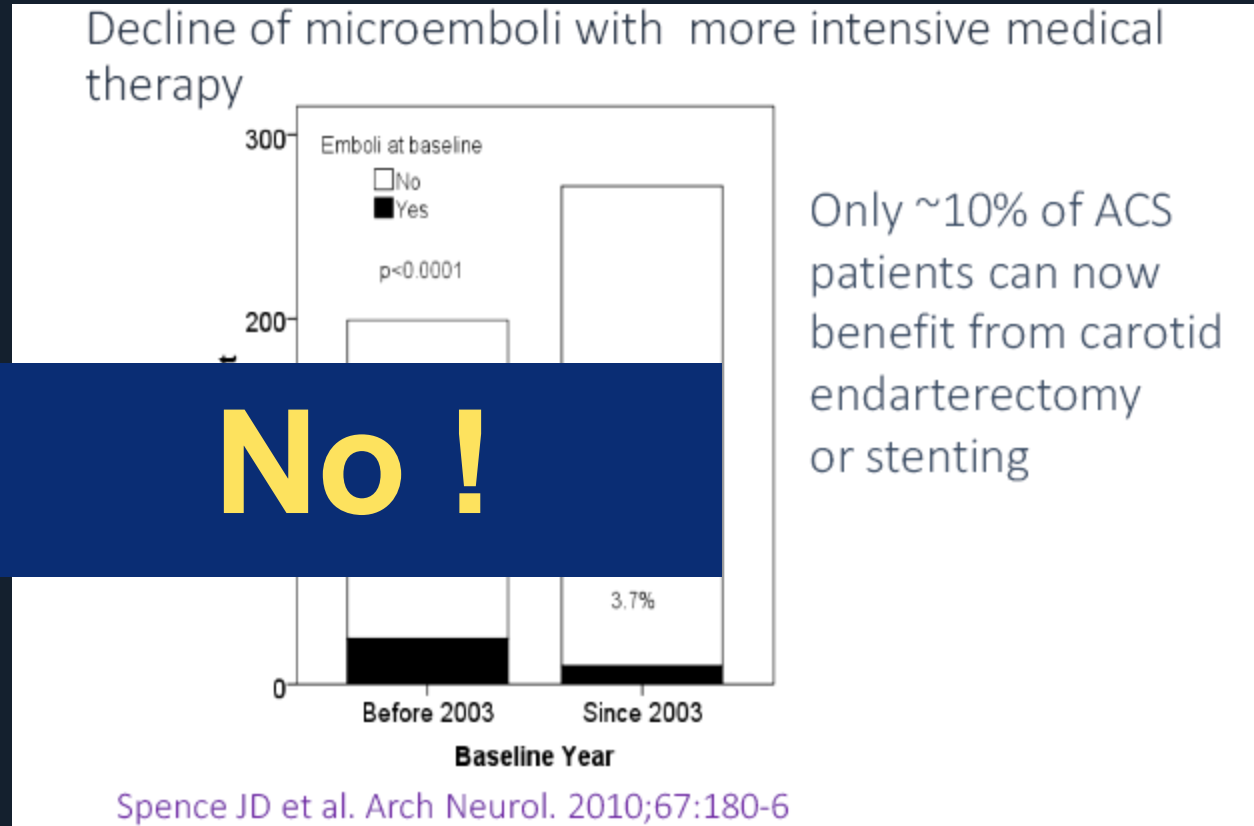
No !

Invasive Treatment of ACS ?

Naylor AR, Gaines PA, Rothwell PM. Who benefits most from intervention for asymptomatic carotid stenosis: patients or professionals? *Eur J Vasc Endovasc Surg.* 2009;37:625–632.

No !

Invasive Treatment of ACS?



Spence JD. Asymptomatic carotid stenosis: mainly a medical condition. *Vascular*. 2010;18:123-6; discussion 127.

Invasive Treatment of ACS?

The risk of stroke and death is now lower with intensive medical therapy than with CEA or CAS.

Trials are needed ...

SPACE-2 failed

CREST 2 data in 10 years?

“It is difficult to get a man to understand something, when his salary depends on his not understanding it.”

Upton Sinclair

The image is a reproduction of the famous fresco 'The Creation of Adam' by Michelangelo. It depicts Adam on the left, reclining on a rock, and God on the right, reaching out from a reclining position. The two hands are just inches apart, creating a sense of tension. A red speech bubble with white text is superimposed over the center of the image, pointing towards the gap between the hands.

Thou shall give only BMT!