DESPITE LEVEL 1 & OTHER RECENT EVIDENCE TO THE CONTRARY
THE OUTLOOK FOR CAROTID STENTING OR CAS IS BRIGHT

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LINC - 2017

LEIPZIG – JANUARY 24, 2017
I HAVE NO FINANCIAL CONFLICTS
ALTHOUGH I HAVE LOTS OF BIASES
DESPITE SOME OPINIONS TO THE CONTRARY, CAROTID STENTING OR CAS IS CURRENTLY IN DECLINE. GENERALLY, FOR TREATMENT OF SYMPTOMATIC & ASYMPTOMATIC CAR STENOSIS, THIS IS BECAUSE...
WITH SYMPTOMATIC CAROTID STENOSIS PTS

RECENT RCTs, POPULATION BASED STUDIES & A SYSTEMATIC REGISTRY REVIEW* (2015) SHOWED MUCH HIGHER STROKE/DEATH RATES WITH CAS THAN CEA

*Paraskevas, Naylor: EJVES 2015
& WITH MOST ASYMPTOMATIC CAROTID STENOSIS PATIENTS

BEST MEDICAL TREATMENT HAS SUCH LOW STROKE RATES THAT IT MAY MAKE CAS (& CEA) UNNECESSARY
ANNUAL STROKE RATE WITH ASX CS DECREASED DUE TO BETTER BMRx & STATINS FROM 3-6% TO <1% / YR

FROM A ABBOTT & R NAYLOR
IMPORTANT NEW EVIDENCE!
ONE ARTICLE BY SPENCE* CONFIRMS THE LOW RISK OF OCCLUSION (<0.1%) & STROKE (.9%) IN PATIENTS WITH ASx CAR STEN ON GOOD MEDICAL Rx

*BY YANG, SPENCE ET AL
JAMA NEUROL, SEPT 21, 2015
A second recent article by Paraskevas, Naylor (EJVES 2015) was a systematic review of stroke & death rates after CAS & CEA in 21 contemporary administrative registries. It showed that CAS had significantly higher stroke/death rates than CEA in most of these registries for SX & ASX CS in many cases exceeding AHA GL.
SO CAROTID STENTING OR CAS IS CURRENTLY IN DECLINE GENERALLY FOR TREATMENT OF SYMP & ASYMPTOMATIC CAR STENOSIS
HOWEVER
HOWEVER, I BELIEVE OUTLOOK FOR CAS IS BRIGHT BECAUSE 3 ADVANCES MAY DECR STROKES

- BETTER EMBOL PROTECT DEVICES WITH CESS/REVERSAL OF FLOW (MOMA)
- CERVICAL ACCESS (SILK ROAD SYSTEM) TO AVOID THE AORTIC ARCH & REV FL
- MEMBRANE OR MESH COVERED STENTS TO STOP DELAYED STROKES
OUR 1995 EX VIVO MODEL OF CAS
Endovascular Bath

- Saline
- Main Port
- Sheath
- Filter
- Bath
OUR 1995 EX VIVO MODEL OF CAS
LET US LOOK AT THESE 3 ADVANCES THAT MAY DECR STROKES WITH CAS

1. MEMBRANE OR MESH COVERED STENTS TO STOP DELAYED STROKES

2. BETTER EMBOL PROTECT DEVICES WITH CESS/REVERSAL OF FLOW

3. CERVICAL ACCESS (SILK ROAD SYSTEM) TO AVOID THE AORTIC ARCH & REV FL
More than 70% of events after CAS occur after the procedure.

From M. Bosiers, and others.
DEBRIS THROUGH STENT CAUSING DELAYED EMBOLI
THE SOLUTION
MEMBRANE OR MESH COVERED STENTS
THE THREE MICROMESH CAROTID STENTS

Paused

GORE CAROTID STENT

TERUMO

ROADSAVER
A MESH COVERED STENT TO PREVENT DELAYED EMBOLIZATION

Dual layer micromesh design for sustained embolic protection.

ROADSAVER
TRIALS PROMISING BUT NEED MORE MORE & LATE RESULTS TO BE SURE THEY DON’T INCREASE LATE STENOSIS
OTHER 2 ADVANCES THAT MAY DECR STROKES WITH CAS

2. BETTER EMBOL PROTECT DEVICES WITH CESS/REVERSAL OF FLOW (MOMA)

3.* CERVICAL ACCESS (SILK ROAD SYSTEM) TO AVOID THE AORTIC ARCH & REV FL

1. MEMBRANE OR MESH COVERED STENTS TO STOP DELAYED STROKES
SILK ROAD CERVICAL ACCESS SYSTEM WITH REVERSAL OF FLOW
A NEW, SURGICALLY-INSPIRED ENDOVASCULAR SOLUTION

ENROUTE™ Transcarotid Stent and Neuroprotection System

Blood flow is reversed from the common carotid artery

Shorter delivery system and wires for simplified setup and delivery

Blood flow is returned to femoral vein

Dynamic Flow Controller Hi / Low / Off

Embolic filter (200µ)

CAUTION: Investigational device. Limited by federal (USA) law to investigational use. The ENROUTE™ Transcarotid Stent and Neuroprotection Systems bear the CE mark of conformity and are available for sale in EU and EFTA countries.
## SURGICAL OUTCOMES IN STROKE REDUCTION

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EARLY RESULTS IN 3 TRIALS IN HIGH RISK PTS ARE PROMISING LOW STK & DWMRI LESIONS BUT WE NEED MORE & LONGER TERM RESULTS
SO
CAS WOULD BE MORE COMPETITIVE TO CEA & WOULD REPLACE CEA MORE WIDELY THAN IT DOES NOW

FOR SYMPTOMATIC & ASX PTS
IF THESE 3 ADVANCES DECREASE CAS STROKE RATES
FOR ASYMPTOMATIC PATIENTS THERE ARE PROMISING WAYS ON THE HORIZON TO SELECT THOSE AT HIGH RISK OF STROKE

1. TCD DETECTED MICROEMBOLI
2. DUPLEX PLaque EVALUATION
3. MRI & CT PLaque EVALUATION
4. SILENT MRI & CT INFARCTS

SOME ASX PT GROUPS HAVE >12% PER YEAR STROKE RISK vs <1%
THESE HIGH RISK ASYMPTOMATIC PTS SELECTED BY THESE METHODS CLEARLY WOULD BENEFIT FROM CAS OR CEA - IN ADDITION TO BEST MEDICAL TREATMENT THUS INCREASING THE NUMBER OF PATIENT NEEDING CAS & REDUCING NO. OF UNNEC PROC
HOWEVER THERE IS 1 RESERVATION:

THAT IS

THE EFFICACY OF THESE 3 METHODS FOR DECREASING CAS STROKE RATES & IMPROVING ASX PATIENT SELECTION MUST BE PROVEN BY APPROPRIATE CLINICAL TRIALS.
1. DESPITE THIS RESERVATION, I BELIEVE THE OUTLOOK FOR CAROTID STENTING OR CAS IS BRIGHT IN THE FUTURE.

2. ALL VASCULAR SPECIALISTS SHOULD PREPARE FOR IMPROVING CAS RESULTS.
THANKS FOR YOUR ATTENTION
DESPITE LEVEL 1 & OTHER RECENT EVIDENCE TO THE CONTRARY
THE OUTLOOK FOR CAROTID STENTING OR CAS IS BRIGHT

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