

**DESPITE LEVEL 1 & OTHER RECENT
EVIDENCE TO THE CONTRARY**

**THE OUTLOOK FOR CAROTID
STENTING OR CAS IS BRIGHT**

FRANK J. VEITH

LINC - 2018

LEIPZIG - JANUARY 30, 2018

**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 SYMP &
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**

**IMPORTANT NEW
EVIDENCE !**

**AN 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**

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

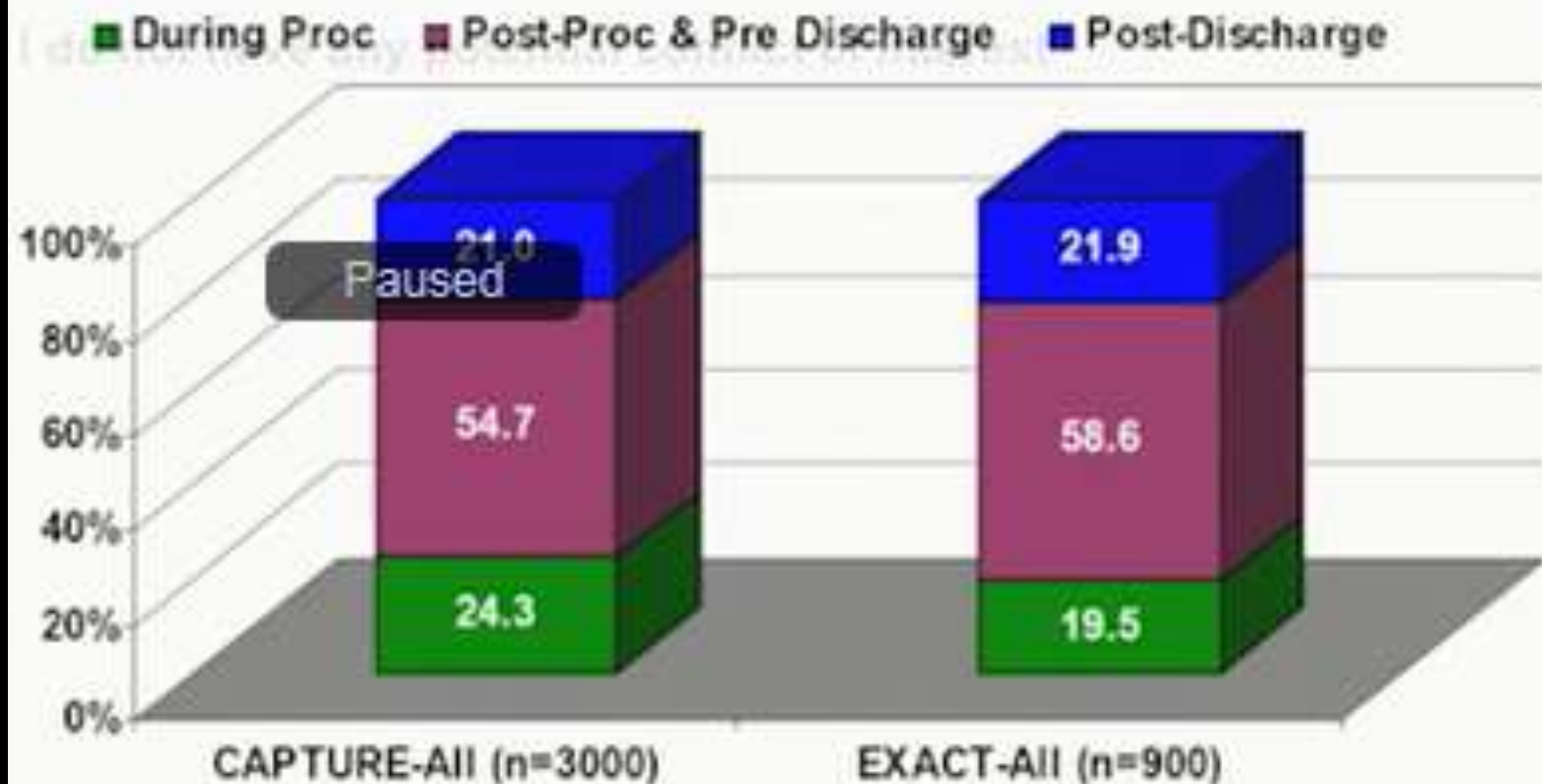
- **BETTER EMBOL PROTECT DEVICES**
WITH CESS/REVERSAL OF FLOW (MOMA)
- **CERVICAL ACCESS (SILK ROAD SYSTEM)**
TO AVOID THE AORTIC ARCH & REV FL
- **MEMBRANE OR MESH COVERED**
STENTS TO STOP DELAYED STROKES

LET US LOOK AT THESE 3 ADVANCES THAT MAY DECR STROKES WITH CAS

2. BETTER EMBOL PROTECT DEVICES
WITH CESS/REVERSAL OF FLOW
3. CERVICAL ACCESS (SILK ROAD SYSTEM)
TO AVOID THE AORTIC ARCH & REV FL
1. MEMBRANE OR MESH COVERED
STENTS TO STOP **DELAYED STROKES**

More than 70% of events after CAS occur after the procedure

Speaker's name: Max Amor



From M.Bosiers, and others

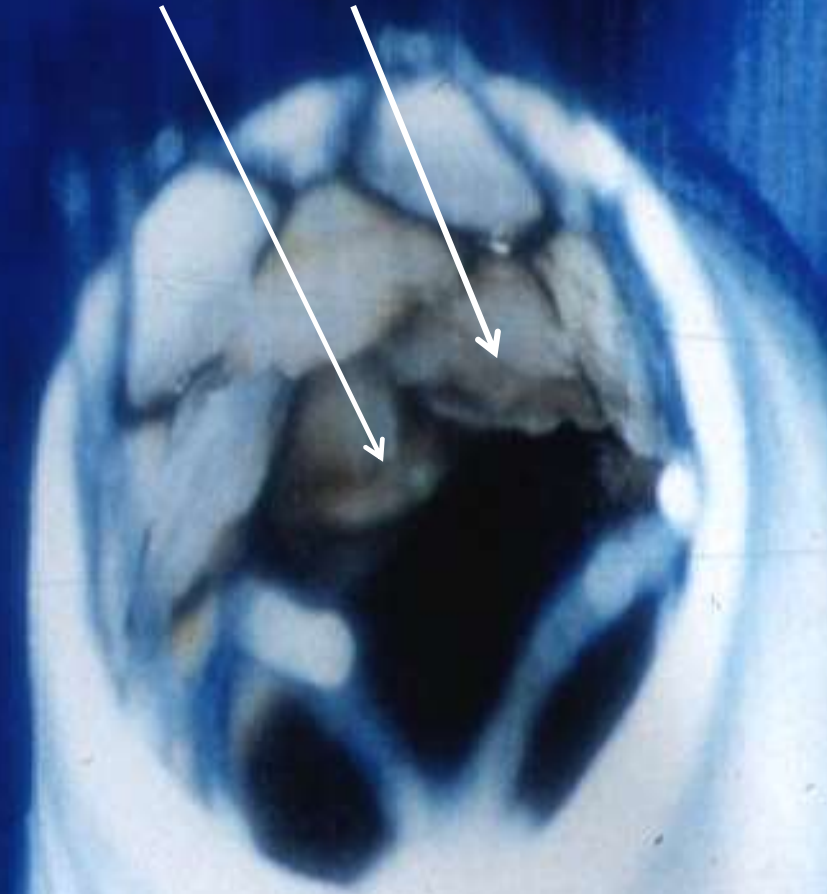
OUR 1995 EX VIVO MODEL OF CAS



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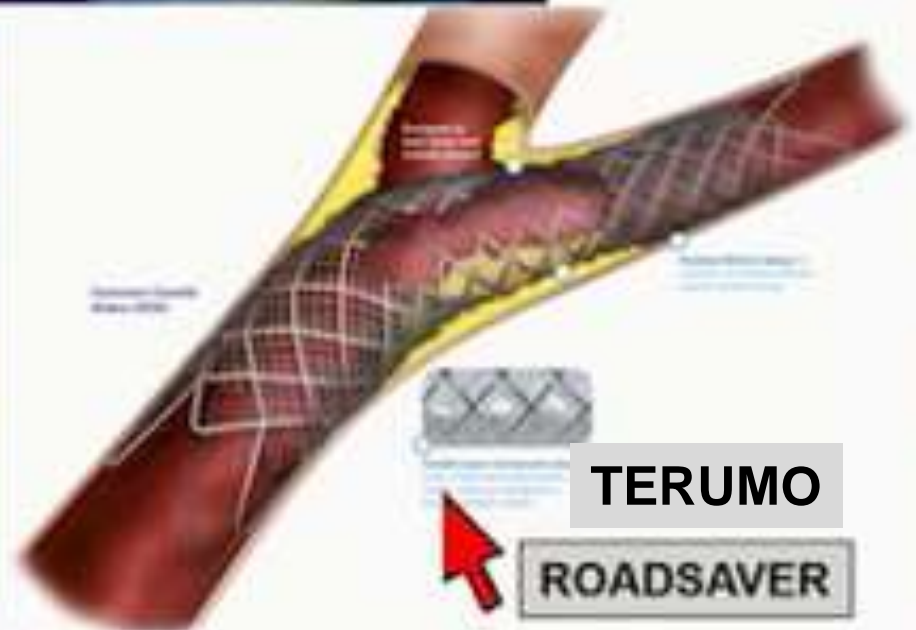
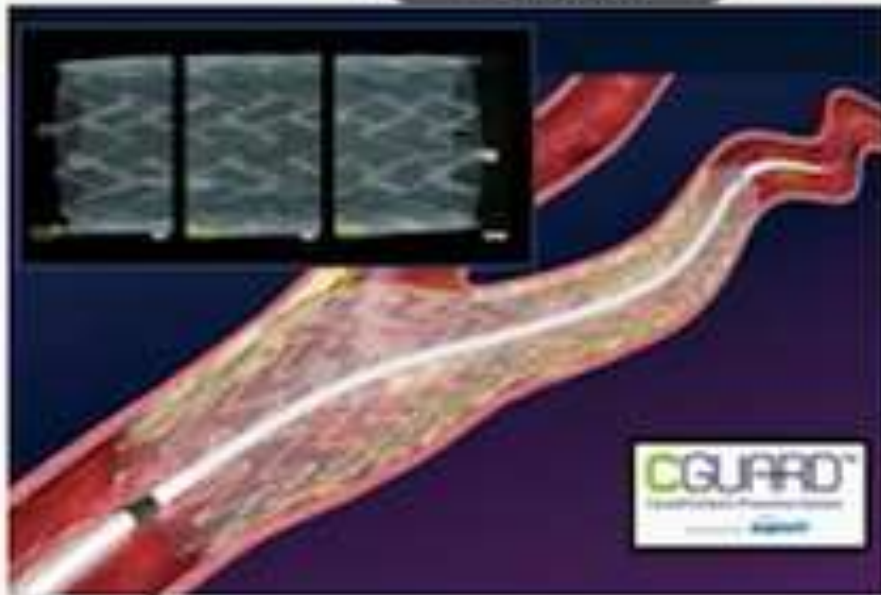


**DEBRIS THROUGH STENT
CAUSING DELAYED EMBOLI**



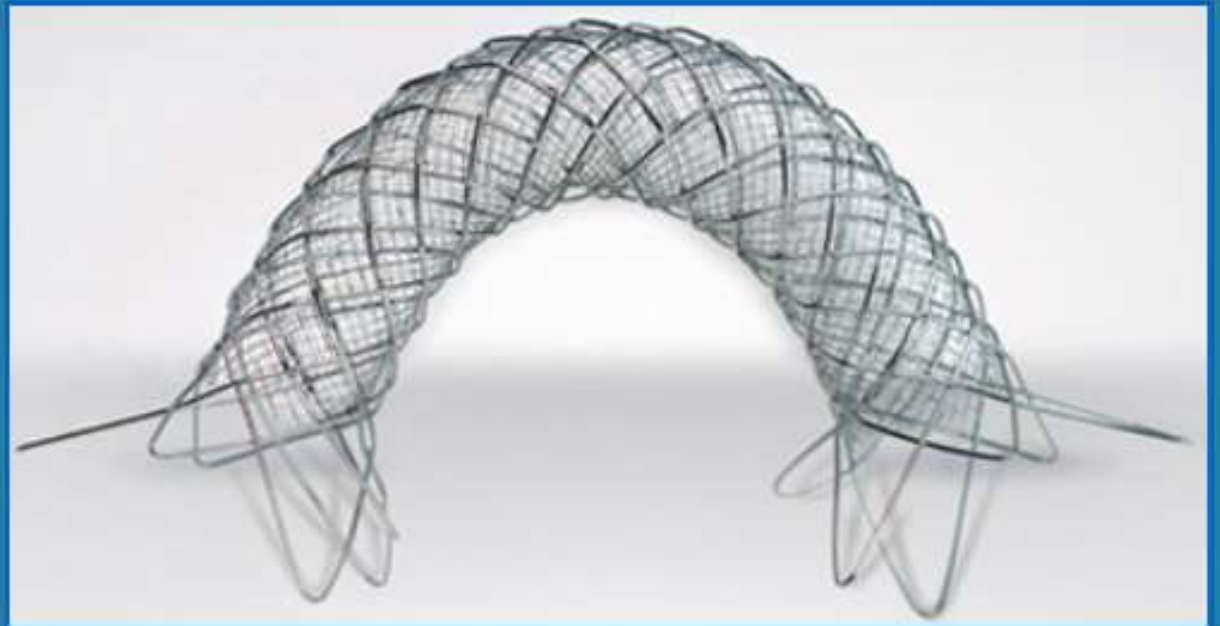
THE SOLUTION
MEMBRANE OR MESH
COVERED STENTS

THE THREE MICROMESH CAROTID STENTS



A MESH COVERED STENT TO PREVENT DELAYED EMBOLIZATION

Dual layer micromesh design for sustained embolic protection.



ROADSAVER

**TRIALS PROMISING
BUT NEED
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

Shorter delivery system
and wires for simplified
setup and delivery

Blood flow is returned
to femoral vein

Blood flow is reversed
from the common
carotid artery

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.*

**EARLY RESULTS IN 3
TRIALS IN HIGH RISK PTS
ARE PROMISING
LOW STK & DWMRI LESIONS
BUT WE NEED MORE &
LONGER TERM RESULTS**

so

**FOR SYMPTOMATIC & ASX PTS
IF THESE 3 ADVANCES
DECREASE CAS STROKE RATES**

**CAS WOULD BE MORE
COMPETITIVE TO CEA
& WOULD REPLACE CEA
MORE WIDELY
THAN IT DOES NOW**

**FOR ASYMPTOMATIC PATIENTS
THERE ARE PROMISING WAYS
ON THE HORIZON TO SELECT
THOSE AT HIGH RISK OF STROKE**

- 1. TCD DETECTED MICROEMBOLI**
 - 2. PLAQUE EVALUATION WITH
DUPLEX, CT & MRI**
 - 3. SILENT MRI & CT INFARCTS**
- SOME HI RISK ASX PT GROUPS
HAVE >12%/YR STROKE RISK**

**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 VALUE OF THESE METHODS
FOR DECREASING CAS STROKE
RATES & IMPROVING ASX PATIENT
SELECTION MUST BE PROVEN
BY APPROPRIATE CLINICAL TRIALS**

MY CONCLUSIONS

- 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**

**THAT IS MY OPINION &
THANKS FOR YOUR ATTENTION**



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