

**WHY ONLY SX CAROTID
PTS NEED TO BE RxE**

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MEET - 2008

CANNES, FRANCE – JUNE 28, 2008

**WHY ONLY SX CAROTID
PTS NEED TO BE RxE**

**WHY MOST ASYMPTOMATIC
CAROTID STENOSIS PTS
DO NOT NEED TO BE TREATED**

KEEP IN MIND THE PHILOSOPHICAL POINTS

THINK ABOUT

- R/B RATIO

- VALUE TO PATIENT

- REMEMBER SECONDARY

MOTIVES THAT

INFLUENCE ALL OF US

WHY ONLY SX CAROTID PTS NEED TO BE RxE

LET'S ANSWER THIS
BY EXAMINING THE
BASIS FOR TREATING
ASX CAROTID STENOSIS
AND PROVING
IT'S NO GOOD

**HARD BECAUSE YOU
MAY SAY Rx OF CAROTID
DISEASE MUST BE AND**

**IS BASED ON
EVIDENCE BASED MED &
LEVEL I EVIDENCE**

THAT'S RIGHT BUT...

EVIDENCE BASED MEDICINE

**THE HOLY GRAIL
FOR DETERMINING
MEDICAL PRACTICE**

EVIDENCE BASED MEDICINE

- **LEVEL I EVIDENCE
THE HIGHEST LEVEL**
- **THE HOLIEST OF
HOLY GRAILS**

DEFINITION OF LEVEL I EVIDENCE

**BASED ON WELL
CONDUCTED
RANDOMIZED
CONTROLLED TRIALS**

**AND LEVEL I EVIDENCE
EXISTS FOR TREATING
CAROTID DISEASE
BOTH SX & ASX**

**THE LANDMARK TRIALS
NASCET ECST ACAS ACST ETC
RIGHT? WRONG!**

LEVEL I EVIDENCE FLAWS AND WEAKNESSES

- NEWER TECHNOLOGY
- PROGRESS IN CONTROL Rx
- PATIENT SELECTION
- (IN)COMPETENCE OF MDs
- RANDOMIZATION TROUBLES
- APPLICABILITY TO REALITY
- IDEOSYNCRATIC FLAWS

WHAT IS BASIS FOR Rx WITH CEA & CAS ?

- LANDMARK TRIALS
- NASCET, ECST, ACAS, ETC
- IN SX AND ASX PTS WITH CAROTID STENOSIS
CEA IS BETTER THAN
MED Rx - VINTAGE 1990-5

IN THESE LANDMARK ASX TRIALS (ACAS, VA, ACST)

- **CEA** DECREASED
STROKE RATE FROM
2%/YEAR TO 1%/YR
- 16 CEAs TO PREVENT
1 STROKE; TOOK 5 YRS

WHAT IS BASIS FOR CAS ?

- CAS IS = TO CEA, THEREFORE CAS INDICATED FOR SX & ASX PTS WITH CAROTID STENOSIS
- BASED ON THIS EQUIVALENCE & THE LANDMARK TRIALS
- TOTALLY INVALID

BASIS FOR CAS IS INVALID I

- **CAS EQUIVALENCE TO CEA
BASED ON = AERs WITH CAS
REGISTRIES & OLD LMK RCTs**
- **TOTALLY INVALID**
- **PTS & LESIONS NOT EQUIV**

BASIS FOR CAS IS INVALID II

**WHY LANDMARK TRIALS
CANNOT JUSTIFY INVASIVE
CAROTID TREATMENT TODAY**

WHY LANDMARK TRIALS CANNOT JUSTIFY INVASIVE CAROTID TREATMENT TODAY

- CONTROLS THEN-INVALID TODAY
- **BEST MEDICAL TREATMENT HAS
LEFT FORWARD** : STATINS, BETA
BLOCKERS, ANTIPLATELET Rxs,
BETTER DIABETES & BP CONTROL

ARE NEW MED RXs REALLY BETTER THAN OLDER IN PREVENTING STROKES ?

STATINS – **YES** – SPARCL
STROKE 35:2902, 2004
BETA BLOCKERS &
BP CONTROL – **YES**
ANTIPLATELET RXs ETC -YES

SO WE KNOW THAT

- **THESE MEDICAL Rxs
DECREASE STROKES**
- **IN ASX PTS CS IS BENIGN
& Rx DECR STROKE RATE
FROM 2% TO 1% PER YEAR
WITH OBSOLETE MED Rx**

**SO IT IS TOTALLY LOGICAL
THAT BEST CURRENT
EFFECTIVE MEDICAL
TREATMENT WILL BE AS
GOOD AS OR BETTER
THAN BOTH CAS & CEA
WITH THEIR PROCEDURAL
RISKS AND COST IN MOST
ASX CS (> 60%) PATIENTS**

**THIS MEANS THAT
MOST ASX PTS WITH
CAROTID STENOSIS
DO NOT NEED
TO BE TREATED**

HOWEVER

THINGS WE NEED TO KNOW

- WHICH PTS WITH ASX CS HAVE LESIONS THAT WILL → STROKE
- HEAD TO HEAD COMPARISON IN ASX (& SX) PTS OF CAS TO CEA (CREST, ICSS, ETC)
- CAS & CEA TO BEST MED Rx (TACIT, SPACE II)

WILL SUCH TRIALS HAPPEN ?

- **TACIT TRIAL – CAS VS CEA
VS MED Rx**
- **NO ONE WANTS TO FUND
MED ARM - PROBABLY
WON'T HAPPEN**
- **SPACE II PROBABLY WILL
BUT NO RESULTS FOR YRS**

**UNTIL WE HAVE
SUCH EVIDENCE
CAROTID TREATMENT
SHOULD LARGELY BE
RESTRICTED TO SX PTS
& MOST ASX PTS
SHOULD GET BMRx**



