

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

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**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**



