IMPROVE & OTHER RECENT RCTs REACH MISLEADING CONCLUSIONS
EVAR HAS A LOWER MORTALITY THAN OPEN REPAIR FOR RAAAs & IS BEST Rx IF IT CAN BE DONE

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I HAVE NO FINANCIAL CONFLICTS

ENDOVASCULAR TOOLS IN THE MANAGEMENT OF RAAAs
CONCEPT WE HAD SINCE WE DID FIRST US EVAR IN 1992

OUR & OTHERS’ RESULTS SUGGEST THAT EVAR IMPROVES Rx OUTCOMES FOR RAAAs
VEITH, ET AL, ANN SURG 2009

HOWEVER MANY SAY THESE GOOD RESULTS ARE DUE TO CASE SELECTION

AND SOME GROUPS HAVE HAD POOR RESULTS WITH EVAR FOR RAAAs
4 CONTROLLED STUDIES SHOWED EVAR NO BETTER THAN OPEN REPAIR

• PEPPELENBOSCH, BUTH, ET AL. J VASC SURG 43:1111, 2006
• HINCHLIFFE, ET AL. EJVES 32:506, 2006
• CHO – U PITTSBURG – JVS 2012
• GUNNARSSON, ET AL. SWEDISH REGISTRY DATA – EJVES 2015

FAIR TO SAY EVAR FOR RUPT AAAs
- REMAINS CONTROVERSIAL
- SOME STILL SAY WE NEED A RCT OF EVAR vs OR

AND THE RESULTS OF

3 RCTs OF EVAR vs OR FOR RAAAs
HAVE RECENTLY BEEN PUBLISHED & WIDELY PRESENTED

THESE RECENT RCTs ARE:

- ECAR - FRENCH
- AJAX – DUTCH
- **IMPROVE - UK

ALL 3 RCTs CLAIMED NO DIFFERENCE IN 30-DAY MORT BETW EVAR & OPEN REPAIR HOWEVER THAT CONCLUSION OF ALL 3 RCTS IS MISLEADING!

HERE IS WHY
ECAR & AJAX RC TRIALS

BOTH SMALL TRIALS (116 & 107 PTS)
BOTH EXCLUDED HIGH RISK PTS
IN SHOCK & TOO SICK FOR OR
i.e. THOSE PTS MOST LIKELY
TO BENEFIT FROM EVAR &
BOTH DID NOT USE OPTIMAL 3
ADJUNCTS FOR IMPROVING EVAR...
HYPO HEMO, AO BALLOON, ACS Rx
THUS BOTH ARE MISLEADING

IMPROVE TRIAL

LARGE MULTICENTER RCT - DONE
30-DAY & 1-YEAR RESULTS PUBLISHED

Its main conclusion was that:
“A strategy of endovascular repair was not associated with
significant reduction in 30 day
or 1 year mortality”

THIS CONCLUSION WAS...

IMPROVE TRIAL

THIS CONCLUSION WAS
WIDELY QUOTED ON INTERNET &
IN VASCULAR NEWS AS SHOWING:

“NO DIFFERENCE BETWEEN
ENDOVASC & OPEN REPAIR” !!!

HERE IS WHY THIS
CONCLUSION IS
MISLEADING & WRONG

IMPROVE TRIAL

RDMIZD 316 PTS TO ENDOVASC
STRATEGY & 297 TO OPEN REPAIR

30-DAY MORTALITY
EV STRAT GROUP – 35%
OPEN REP GROUP - 37%
NO SIGNIFICANT DIFFERENCE
BUT MUST SEE DETAILS !!!
### IN IMPROVE

Of 316 pts randomized to endovascular strategy only:
- 154 had EVAR - less than half!!!
- 112 had OR; 17 no Rx

Of 297 randomized to open repair:
- 220 had open repair - but
- 36 had EVAR; 19 no Rx

### IMPROVE DETAILED RESULTS

Of pts randomized to endovascular strategy:
- 154 had EVAR: Mortality – 27%
- 112 had OP REP: Mortality – 38%

Of pts randomized to open repair:
- 36 had EVAR: Mortality 22%
- 220 had OP repair: Mortality 37%

### WHEN THE 2 GROUPS WERE COMBINED

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<th>Mortality of all pts treated by EVAR</th>
<th>Mortality of all pts treated by OPN REP</th>
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<td>25%</td>
<td>38%</td>
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Mortality of pts Rx'd by OR+NO Rx = 44%

Open repair pts more likely to get no Rx

Which Rx do you think is better? EVAR or open repair?

### TO ME IT SEEMS THAT THE IMPROVE TRIAL CLEARLY SHOWS THAT EVAR IS THE BETTER TREATMENT FOR RAAA PATIENTS - IF IT CAN BE DONE:

### THIS 100% EVAR STUDY

**Ann Surg 2012**

Showed only 24% 30-day mortality!

Only 4% turn-down rate (vs 20-30+%)!

So this study’s results support same conclusion EVAR superior to OP RPR for RAAAs - if it can be done.

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This conclusion is strongly supported by this - Ann Surg Art (256:688-695, 2012)

By Dieter Mayer, Thomas Larzon, Mario Lachat, Frank Veith, et al

Described a 2 center study in Sweden & Zurich

100% of 70 RAAs were treated by EVAR – although 24% required a chimney or periscope graft
THANK YOU