Update On Abdominal Compartment Syndrome (ACS) After EVAR For RAAAs: Its Diagnosis And Treatment Should Be Better Than It Is In Most Centers

Martin Björck, Uppsala University, Sweden

EVAR rules when treating rAAA!

Initial Experience with Transluminally Placed Endovascular Grafts for the Treatment of Complex Vascular Lesions

Michael L. Martin, M.D., Frank J. Veith, M.D., Jacob Cynamon, M.D., Luis A. Sanchez, M.D., Ross T. Lyon, M.D., Barry A. Levine, M.D., Carlos W. Baskin, M.D., William D. Suggs, M.D., Kurt R. Wengert, M.D., Steven P. Rivara, M.D., Richard E. Parsons, M.D., John G. Yous, M.D., Reese A. Wain, M.D., Takeshi Oiki, M.D., Alan Rosenbloom, M.D., and Juan C. Parodi, M.D.

EVAR rules when treating rAAA!

If there were any doubts, they disappeared after the publication of the three year results of the IMPROVE trial

RESEARCH

Comparative clinical effectiveness and cost effectiveness of endovascular strategy v open repair for ruptured abdominal aortic aneurysm: three year results of the IMPROVE randomised trial

IMPROVE Trial Investigators

The advantage of EVAR (when treating patients with rAAA) may have been underestimated in IMPROVE

• Local anaesthesia was used in only 36% of the patients
• Intra-abdominal pressure was not monitored routinely

EDITORIALS

Endovascular or open repair for ruptured abdominal aortic aneurysm?

S. Björkström

After a discussion

The endovascular approach is better for patients and more cost effective for payers

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Results

- 6,634 patients included
- rAAA - 1,341 repairs (20%)
  - 72% open repairs

Results - rAAA

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<th>ACS Incidence of ACS</th>
<th>OR 6.8%</th>
<th>EVAR 6.9%</th>
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Prophylactic OA in 10.7% after OR

Mortality - rAAA

If ACS: No difference if primary OR vs EVAR

 ACS Incidence of ACS | OR 6.8% | EVAR 6.9% |
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Why was the survival benefit of EVAR lost if the patient developed ACS

- Is ACS simply such a deadly complication that primary treatment does not matter?
- Are there special risks when the patient develop ACS after EVAR for rAAA?
- We performed a second study on 120 patients with ACS, focusing on the differences between OR and EVAR

Survival was similar in the subgroups (pathophysiology and timing)

Pathophysiological mechanism of decompression

- Oedema
- Bowel ischemia
- Bleeding

Timing of decompression

- <24 hours
- 24-48 hours
- >48 hours

Treatment modality

- Intact AAA EVAR
- Ruptured AAA EVAR
- Intact AAA Open surgery
- Ruptured AAA Open surgery
ACS developed earlier after EVAR

Conclusions

• Survival in patients developing ACS was poor
• It did not differ depending on pathophysiological mechanism or timing of decompression
• Duration of intra-abdominal hypertension was an independent predictor of renal replacement therapy
• ACS developed early after EVAR for ruptured AAA
• Early monitoring of IAP after EVAR for rAAA may save lives

Submit your abstracts to next ESVS meeting in Hamburg, deadline April 1, 2019

ESVS 33rd ANNUAL MEETING
24–27 SEPTEMBER 2019