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# Transcaval Embolization of Endoleaks

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# Disclosures



- \* Research-grants, travelling, proctoring speaking-fees, IP, royalties with Cook.
- \* Consultant with Philips
- \* Shareholder Mokita-Medical GmbH
- \* Speaking fees from Getinge
- \* IP, Consultant with Terumo Aortic

# Transcaval Access in TAVI

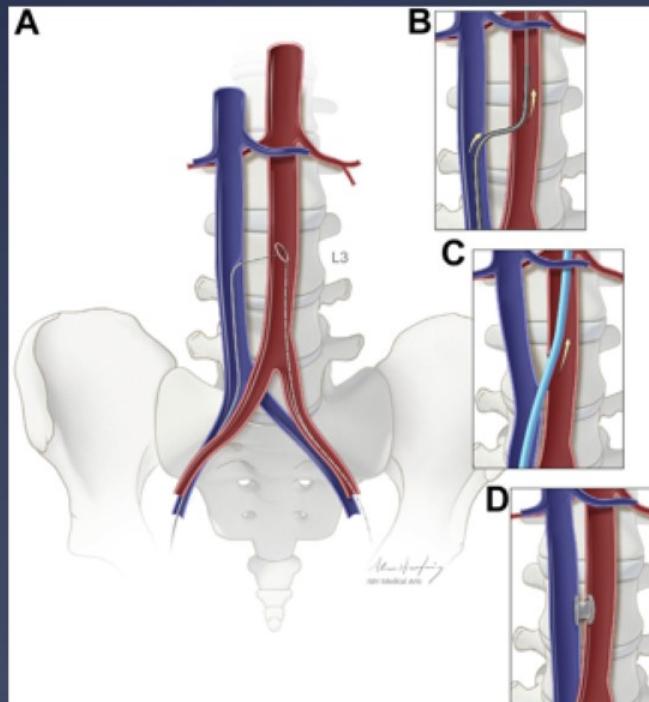


## Caval-Aortic Access to Allow Transcatheter Aortic Valve Replacement in Otherwise Ineligible Patients

Initial Human Experience

Adam B. Greenbaum, MD,\* William W. O'Neill, MD,\* Gaetano Paone, MD,†

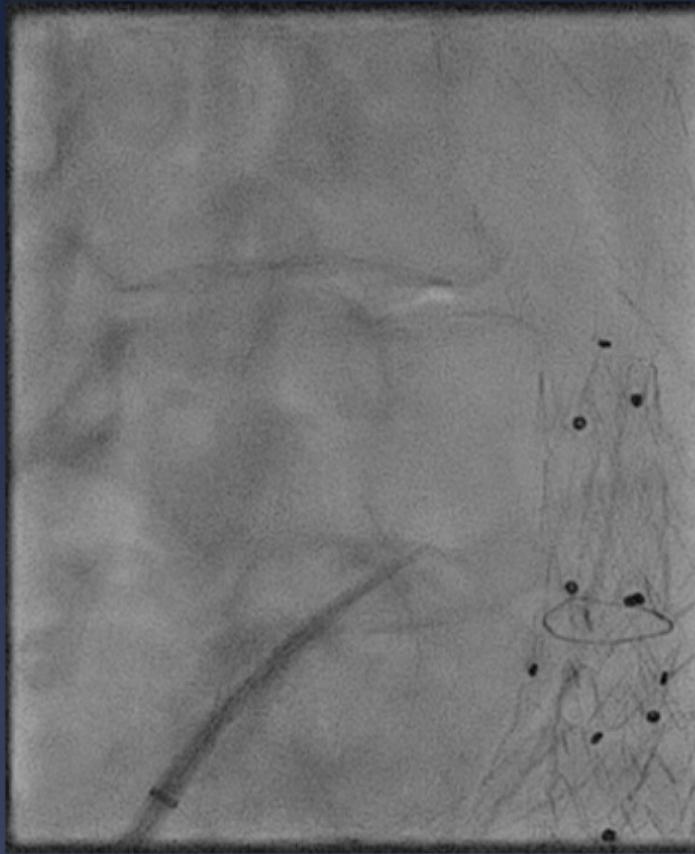
Mayra E. Guerrero, MD,\* Janet F. Wyman, DNP,\* R. Lebron Cooper, MD,‡ Robert J. Lederman, MD§



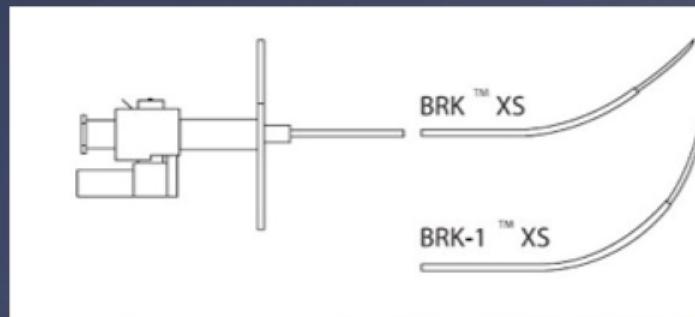
- \* Single center 2013-2014
- \* N=19; age: 81y
- \* Access successfull in 19/19
- \* Dissection: n=2 all conservative
- \* Bleeding: n=4
  - \* 2 conservative
  - \* 2EVAR



# Puncture Technique

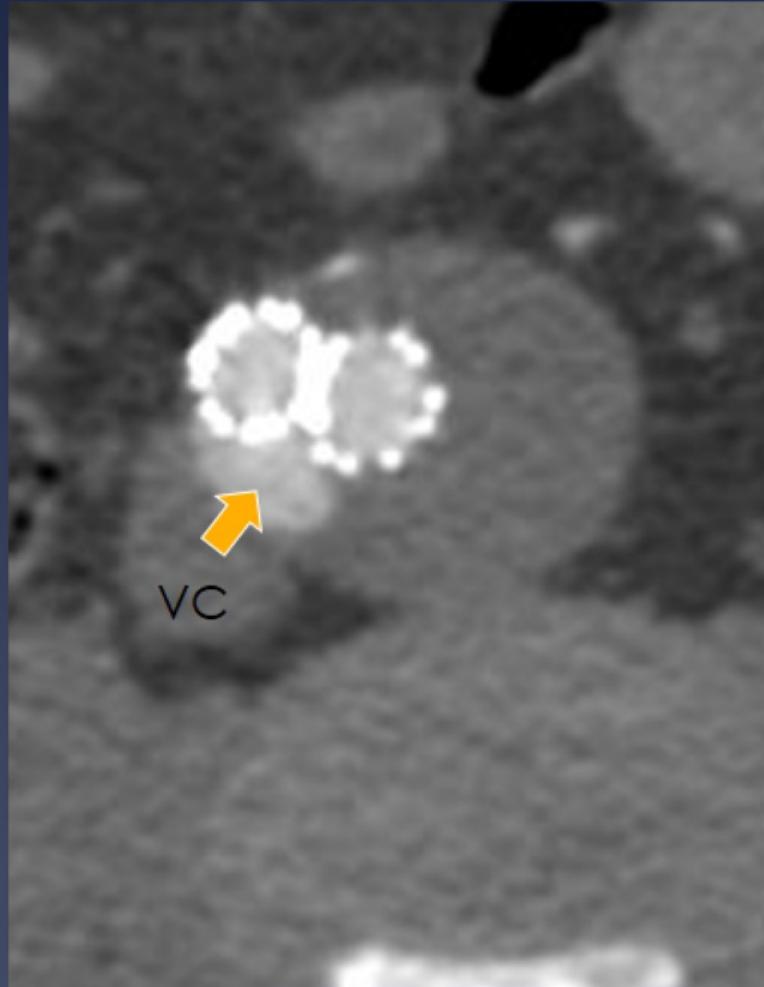


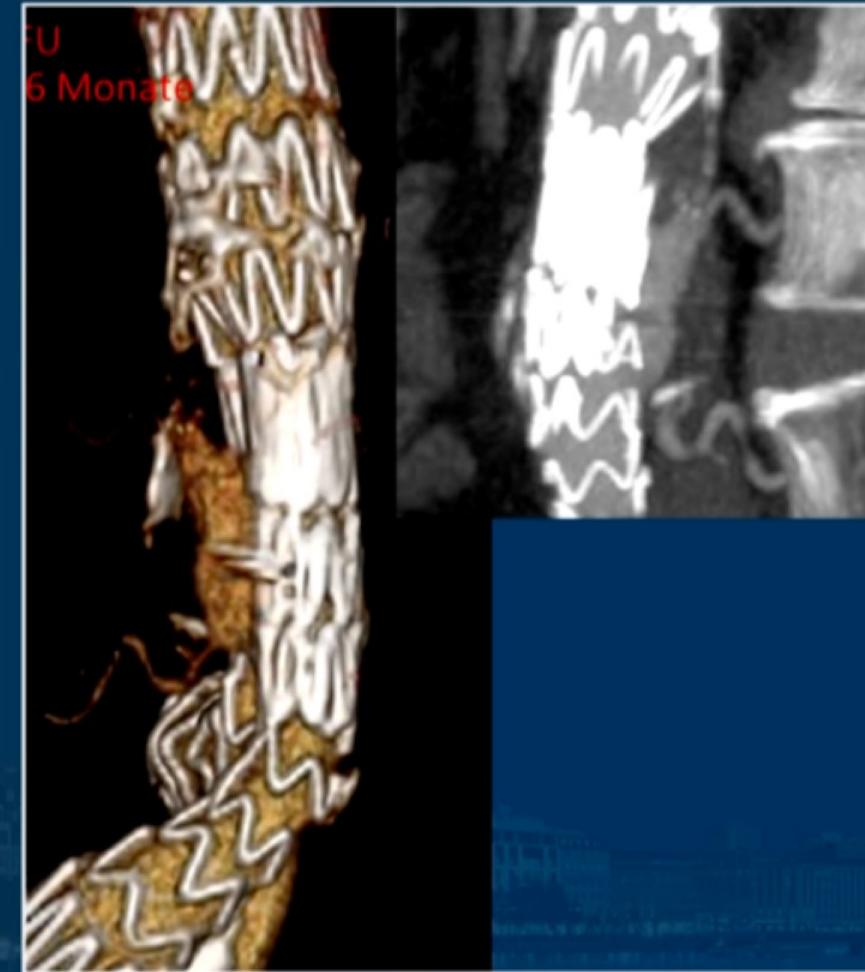
- \* Transcaval
- \* Supine position
- \* Stable position of sheath
- \* Alternative access-points



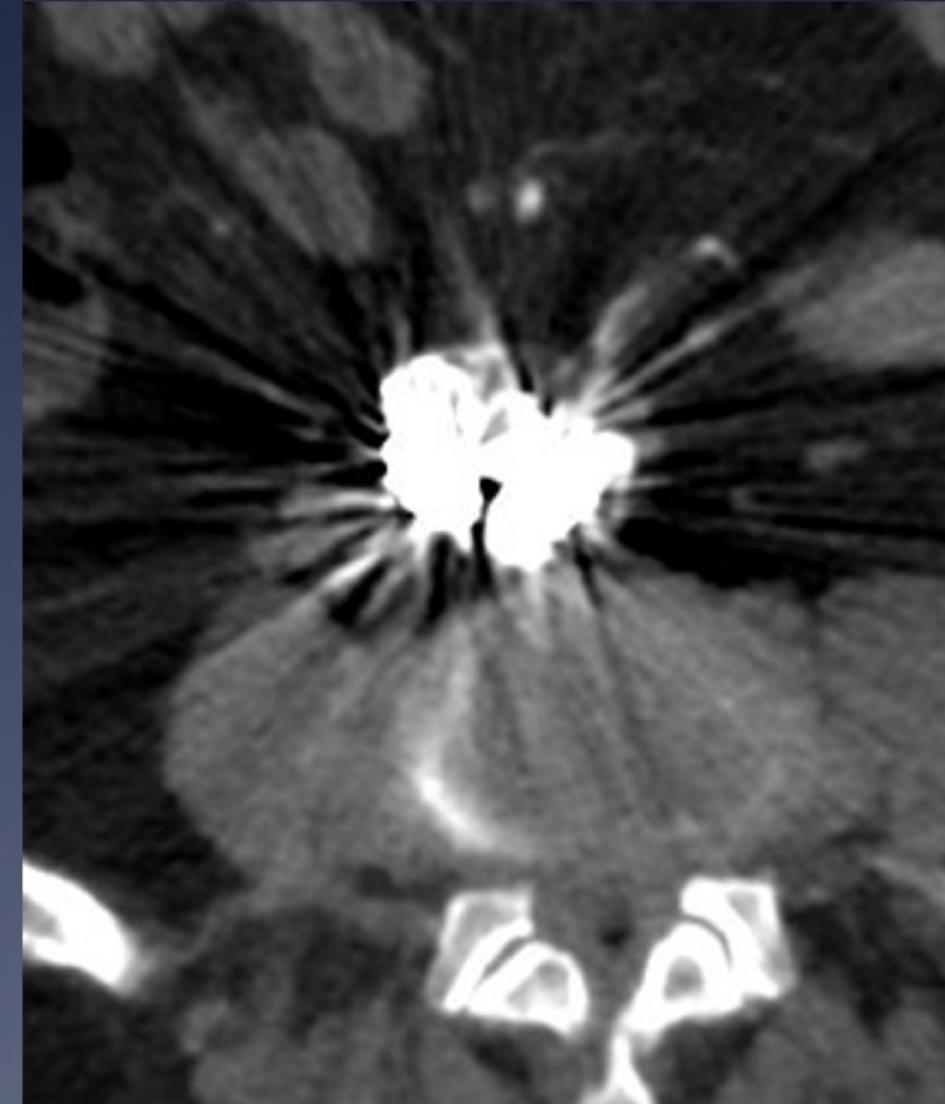


# Case: Transcaval Embolization





# 1y Follow Up

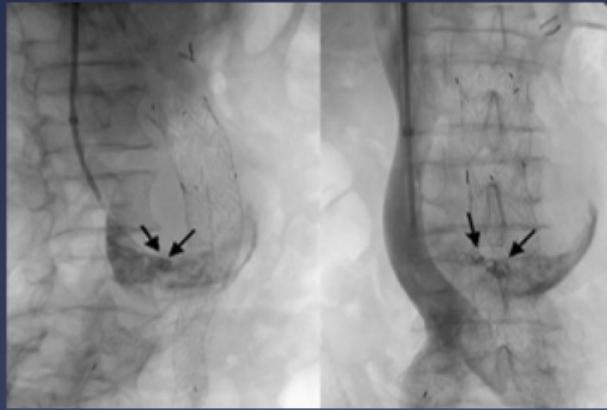


# Transcaval embolization (TCE)

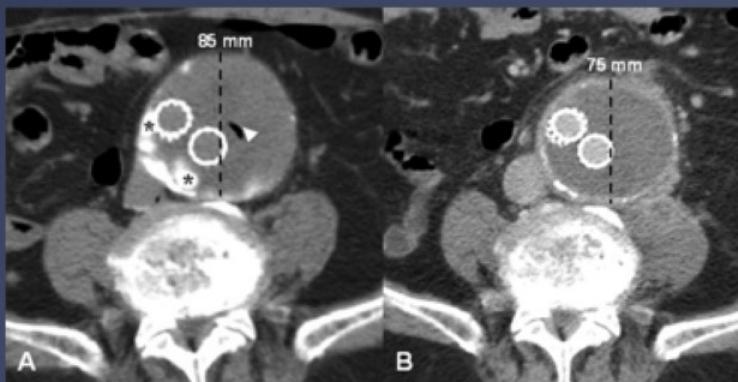


Treatment of type II endoleak with a transcatheter transcaval approach: Results at 1-year follow-up

Giancarlo Mansueto, MD,<sup>a</sup> Daniela Cenzi, MD,<sup>a</sup> Alberto Scuro, MD,<sup>b</sup> Leonardo Gotti, MD,<sup>c</sup>  
Andrea Griso, MD,<sup>b</sup> Andrew A. Gumb, MD,<sup>d</sup> and Roberto Pozzi Mucelli, MD, <sup>a</sup> Verona, Italy; and New York, NY



- \* Single center 2004-2005
- \* N=12; age 79y; 11 male
- \* All type 2 EL after infrarenal EVAR



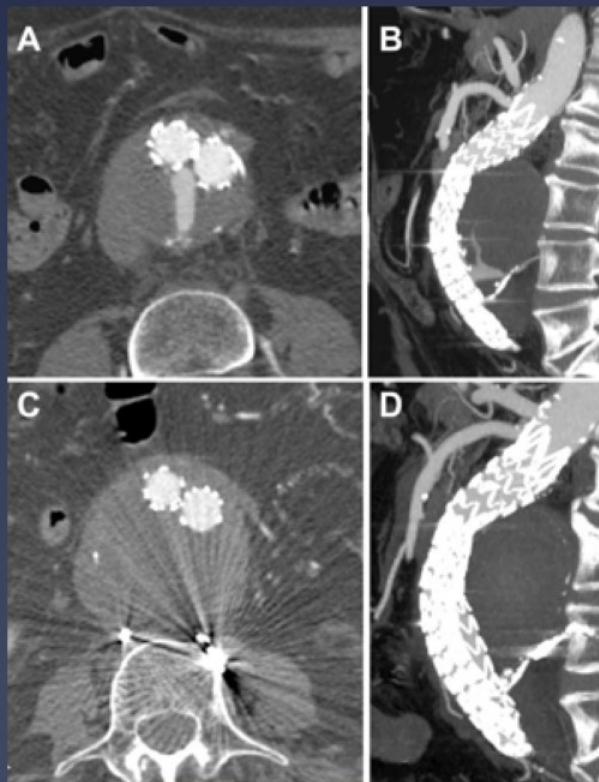
- \* Non-selective: coils, thrombin
- \* Technical success 11/12
- \* 6m FU: 10/11 no Type 2 EL
- \* Regression in 10/11: 6.8mm

# Selective vs. Non-Selective TCE



## Treatment of Type II Endoleak After Endovascular Aneurysm Repair: The Role of Selective vs. Nonselective Transcaval Embolization

Roberto Gandini, MD; Marcello Chiocchi, MD; Giorgio Loreni, MD; Costantino Del Giudice, MD;  
Daniele Morosetti, MD; Antonio Chiaravallotti, MD; and Giovanni Simonetti, MD

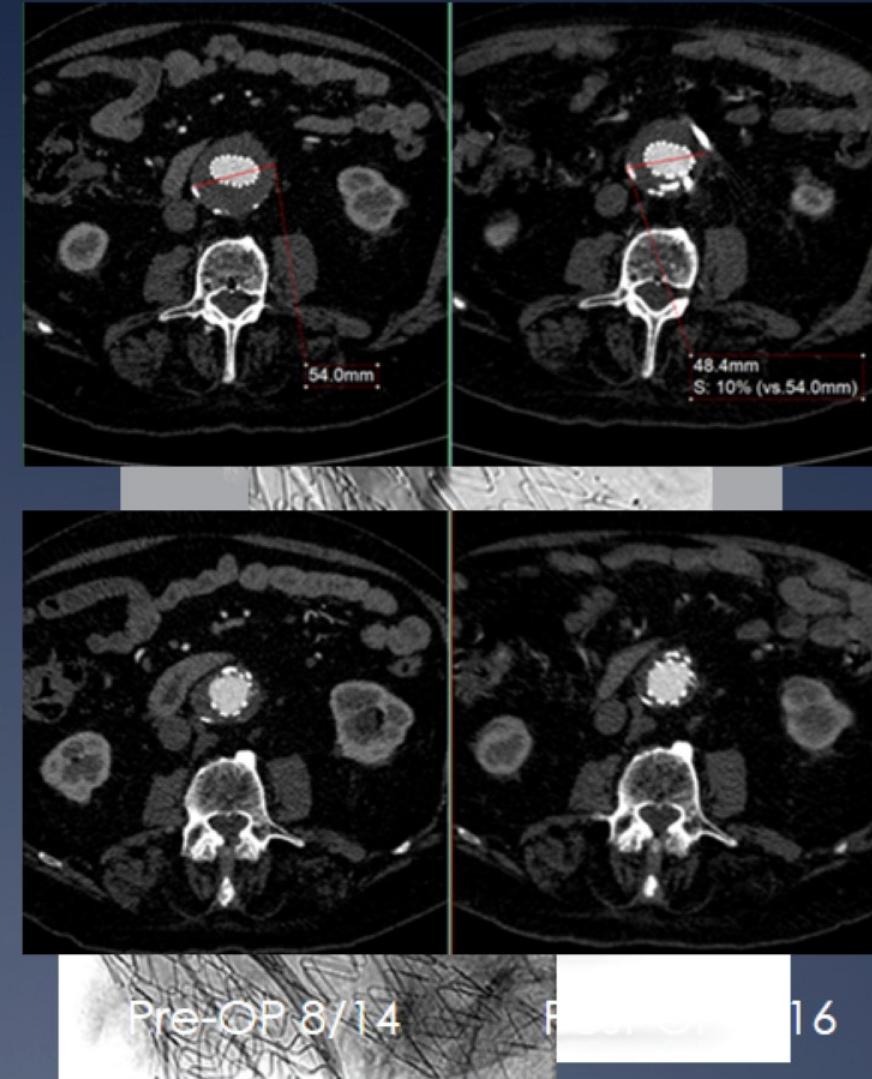


- \* Single center 2008-2012
- \* N=26; Age 73y
  - \* Primary selective TCE: n=17
  - \* Primary non-selective TCE: n=9
- \* Type 2 EL after EVAR and sac-enlargement
- \* Technical success: 26/26
- \* Non-selective TCE: recurrence: 4/9
  - \* Reintervention: n=3 → selective TCE
- \* Selective TCE: no recurrence @ 24months FU

# TCE-Experience Hamburg



- \* 2014-2018: n=21
- \* 11 selective, 9 non-selective TCE
- \* Embolizing agent:
  - Coils: n=20 (mean 11)
  - Histoacryl glue: n=17 ( mean 2.7ml)
  - Thrombin: n=2 ( mean 1,5ml)
  - Vascular plug: n=1
- \* Technical success: 20/21
- \* Complications: n=0
- \* FU  $\geq$  6months (n=15):
  - \* Regression: n=5
  - \* Stable diameter: n=8



# Conclusion



- \* Transcaval embolisation safe and feasible in most patients with Type 2 EL and sac-enlargement after infrarenal and f/bEVAR.
- \* High technical success-rate and low rate of recurrent endoleak.
- \* Selective embolisation preferred but not always feasible.