



New routes to access the aneurysm sac for Type 2 embolization

New Routes to Access the Aneurysm Sac for Type 2 Embolization

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CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE
CONTROVERSIES & UPDATES
IN VASCULAR SURGERY

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MARRIOTT RIVE GAUCHE & CONFERENCE CENTER
PARIS, FRANCE WWW.CACVS.ORG





Disclosures



- * Research-grants, travelling, proctoring speaking-fees, IP, royalties with Cook.
- * Consultant with Philips
- * Research, consulting, royalties with Vascutek.
- * Shareholder Mokita Medical

Type 2 Endoleak



- * Incidence 8-45%
- * Prevalence decreases during Follow-up
- * Predominantly benign
- * Potentially dangerous (ruptures reported)
- * Sac-enlargement 5-25% → Intervention



Treatment Type 2 EL



- * Transarterial embolization
- * Translumbal embolization
- * Transcaval embolization
- * Paraendograft embolization
- * Open, laparoscopic, ligation, etc.

Transarterial Embolization



SMA - IMA



0:00
7:00
9:45:16

hypogastric - lumbar artery

- * Technically challenging
- * Time-consuming
- * High failure rate: 10-80%
- * Repeat procedures: 20%
- * High recurrence rate: 40%

Sarac et al. 2012; J Vasc Surg 55:33-40

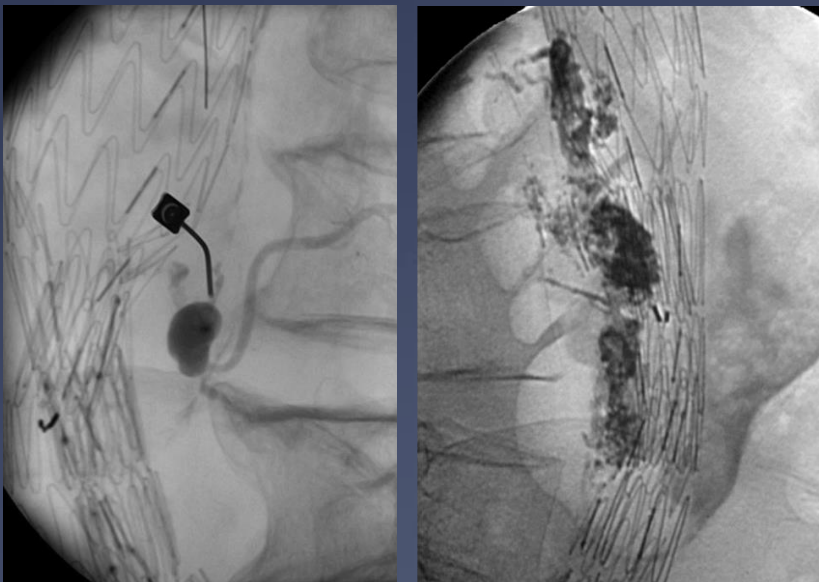
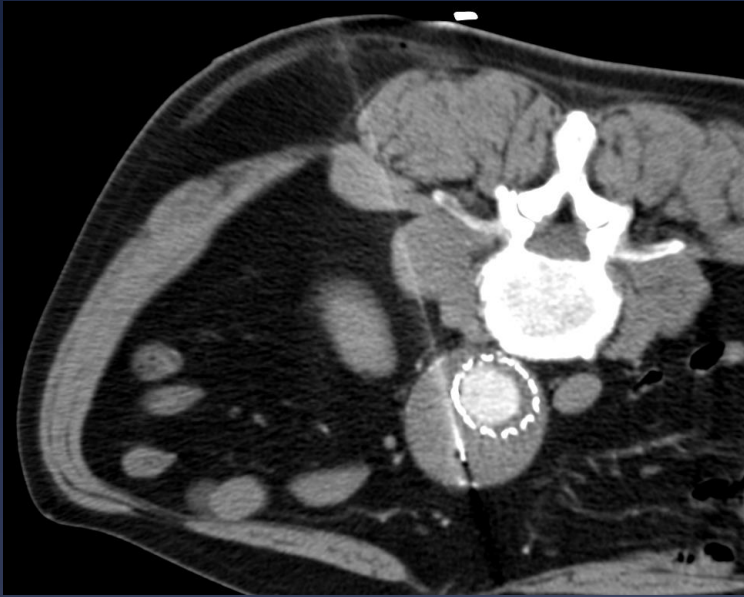
Abularrage et al. 2012; J Vasc Surg 56:630-6

Hongo et al. 2014; J Vasc Intervent Radiol 25:709-16

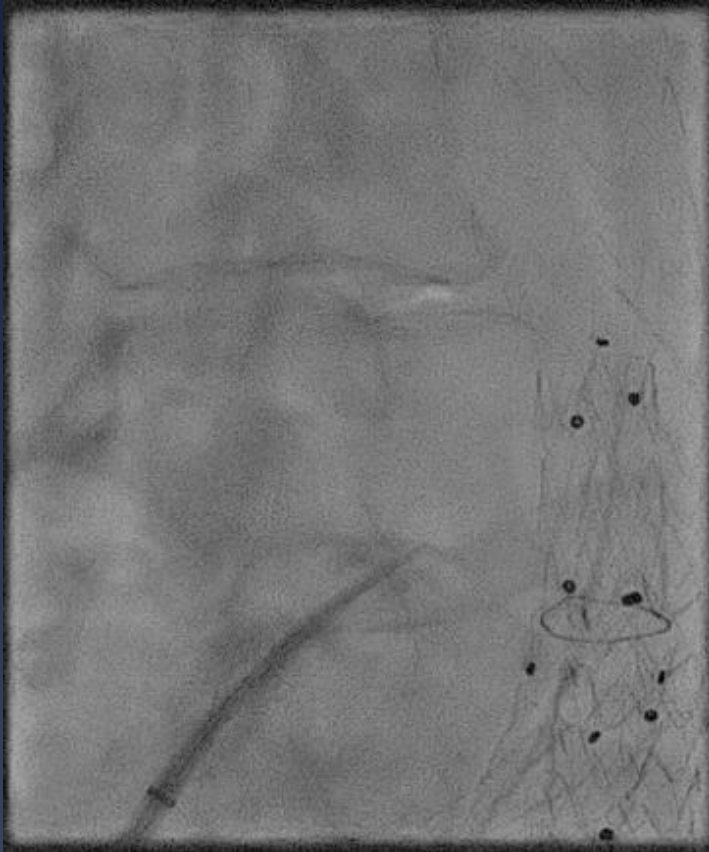
Direct Puncture Techniques



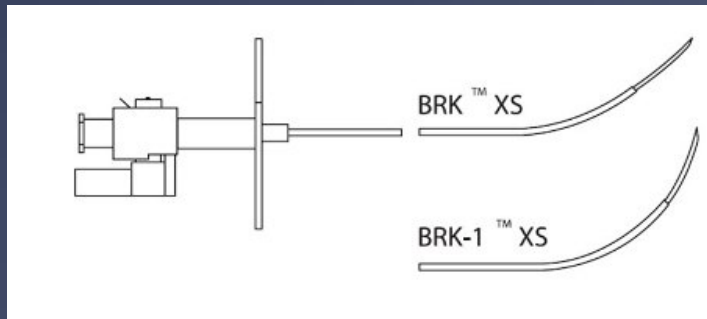
- * Translumbal
- * High success rate
- * Low recurrence rate
- * Selective and non-selective
- * Quick procedure



Direct Puncture Techniques



- * Translumbar
 - * High success rate
 - * Low recurrence rate
 - * Selective and non-selective
 - * Quick procedure
- * Transcaval
 - * Supine position
 - * Stable position of sheath
 - * Alternative access-points

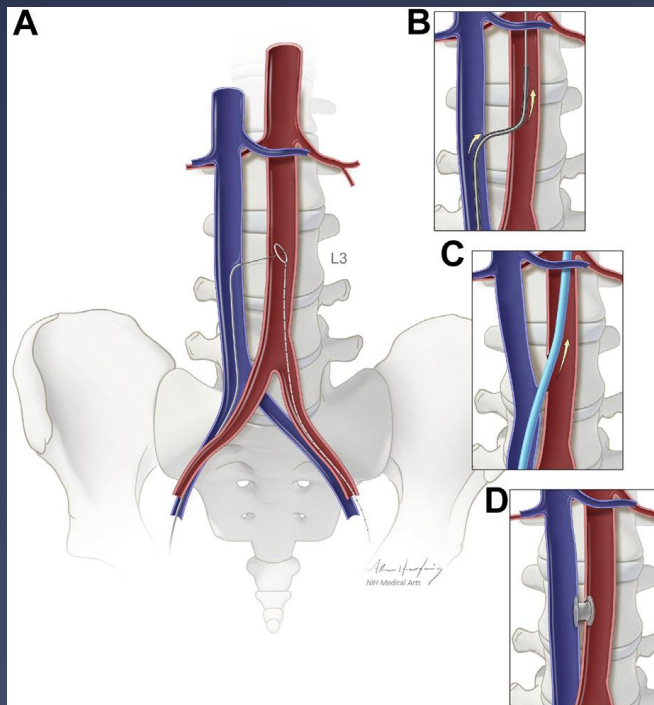


Caval-Aortic Access to Allow Transcatheter Aortic Valve Replacement in Otherwise Ineligible Patients

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§

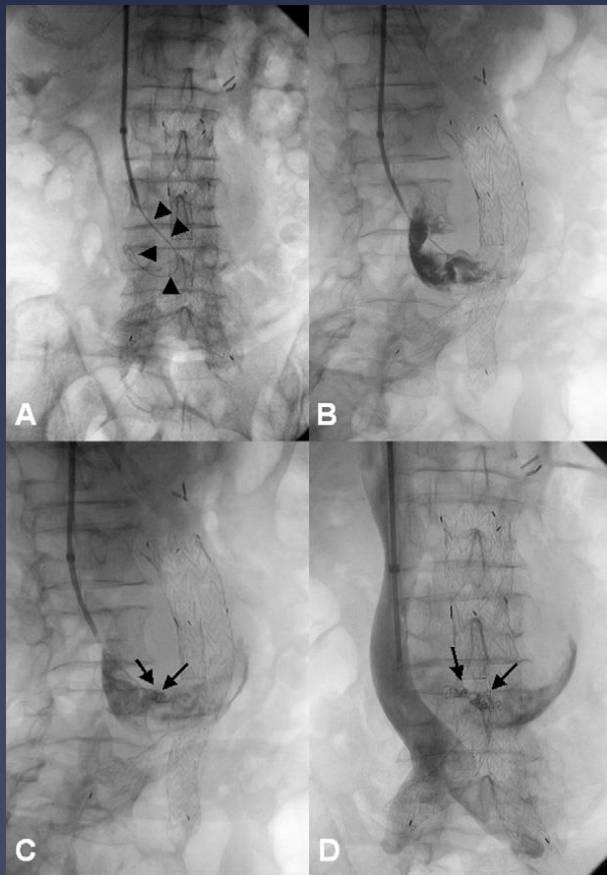


- * Single center 2013-2014
- * N=19; age: 81y
- * Access successful in 19/19
- * Dissection: n=2 all conservative
- * Bleeding: n=4
 - * 2 conservative
 - * 2 EVAR



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

Giancarlo Mansueto, MD,^a Daniela Cenzi, MD,^a Alberto Scuro, MD,^b Leonardo Gottin, MD,^c
Andrea Griso, MD,^b Andrew A. Gumbs, MD,^d and Roberto Pozzi Mucelli, MD,^a *Verona, Italy; and New York, NY*

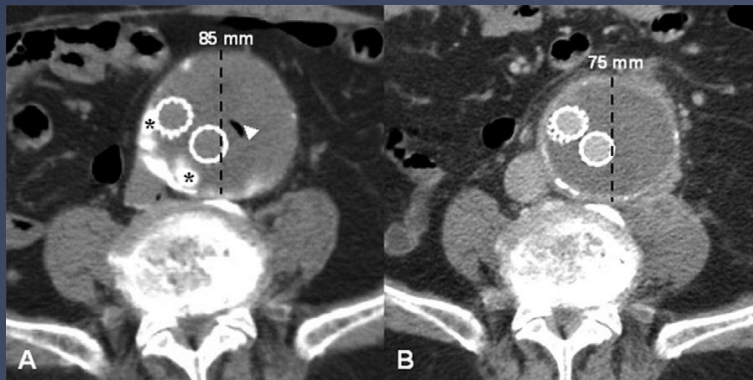
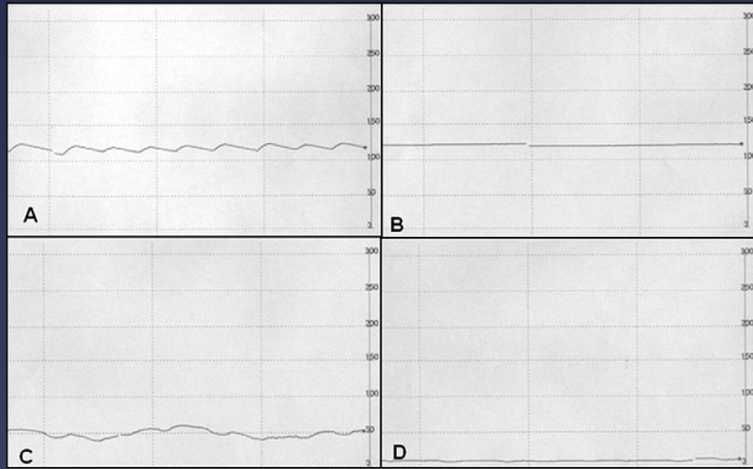


- * Single center 2004-2005
- * N=12; age 79y; 11 male
- * N=4: failed prev. transarterial therapy
- * All type 2 EL after EVAR
- * Access:
 - * Transfemoral: n=7
 - * Transjugular: n=5



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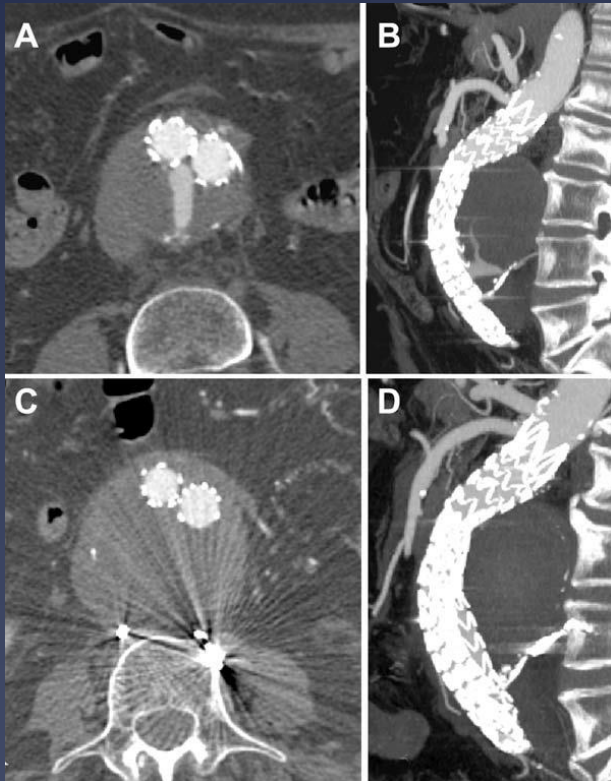


- * Non-selective: coils, thrombin
- * Pressure measurement
- * Technical success 11/12
- * 6m FU: 10/11 no Type 2 EL
- * Regression in 10/11: 6.8mm



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

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

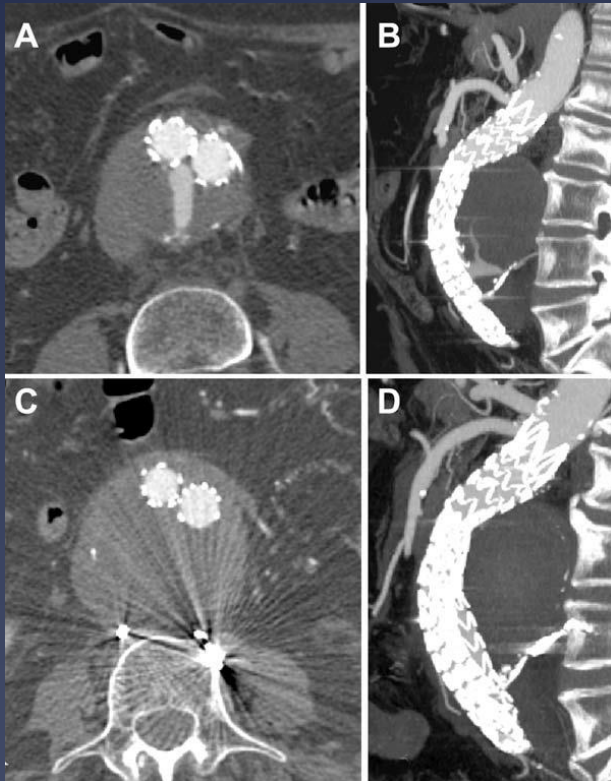


- * Single center 2008-2012
- * N=26; Age 73y
 - * Primary selective TCE: n=17
 - * Primary non-selective TCE: n=9
- * Type 2 EL after EVAR and sac-enlargement
- * All transfemoral access



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

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- * Technical success: 26/26
- * Non-selective TCE: recurrence: 4/9
 - * Reintervention: n=3 → selective TCE
- * Selective TCE: no recurrence @ 24months FU

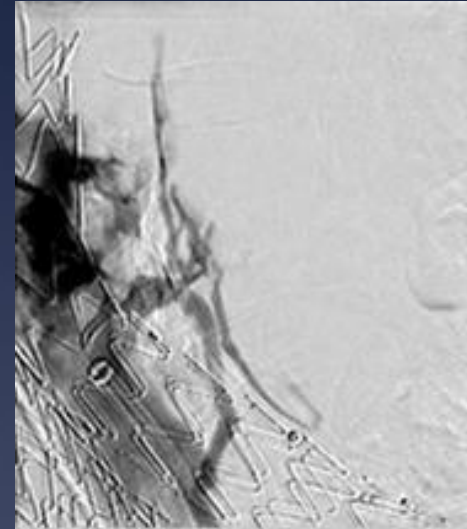


Transcavale Embolisation

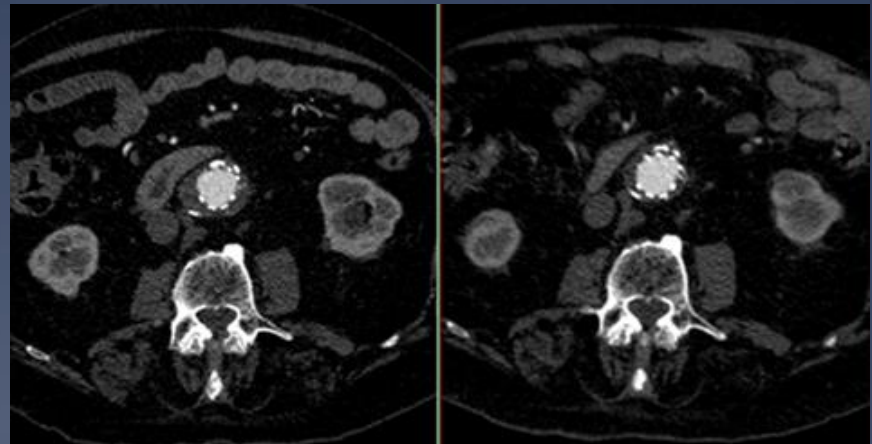
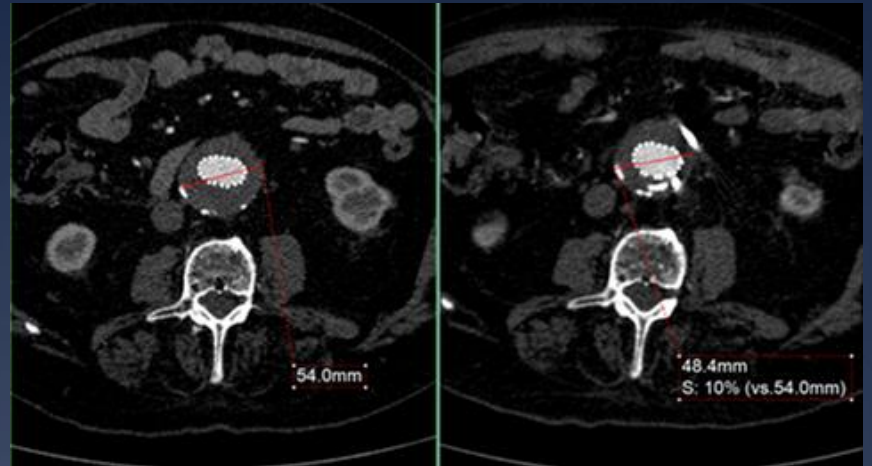
- * 2014-2017: n=17
 - * 76 years (57-89), 16 male
 - * type II endoleak
 - * Infrarenal (n=9) or f/bEVAR (n=7)
 - * 1/17: repeat procedure
 - * 8 selective, 8 non-selective TCE
-
- * Embolizing agent:
 - Coils: n=16 (139)
 - Histoacryl glue: n=14 (mean 2.5ml)
 - Thrombin: n=2 (mean 1,5ml)
 - Vascular plug: n=1



- * Technical success: 16/17
 - * Procedural time: 104,3 min
 - * Fluoroscopy time: 29,3 min
 - * DAP: 27086 cGy*cm²
 - * Contrast: 74,8ml (VP 270)
- * Complications: n=0



- * Reinterventions:
 - * Re-TCE: n=1
 - * Aortic banding+ open ligation n=1
- * FU $\geq$ 6months (n=10):
 - * Regression: n=3
 - * Stable diameter: n=6
- * Mean FU: 15,3 months
 - * 4-29 months



Pre-OP 8/14

Post-OP 3/16

Conclusion



- * Transcaval embolisation safe and feasible in most patients with Type 2 EL and sac-enlargement.
- * High technical success-rate and low rate of recurrent endoleak.
- * Selective embolisation preferred but not allways feasible.
- * CT-Fusion helpful to find nidus.



Welcome to Essen!



5th AORTIC LIVE SYMPOSIUM

SAVE
THE DATE



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2018

October 29-30, 2018

Congress Center Essen, Germany

In 2018 Aortic Live Symposium will return to Essen, Germany again.
We are looking forward to welcoming you again next year!