



# Combination of the chimney technique and an iliac-branched device for the repair of a failed EVAR

P. Nana<sup>1</sup>, G. Kouvelos<sup>1</sup>, K. Spanos<sup>1</sup>, K. Mpatzalexis<sup>1</sup>, G. Psarras<sup>1</sup>, E. Arnaoutoglou<sup>2</sup>, M. Matsagkas<sup>1</sup>

1. Vascular Surgery Department, University Hospital of Larissa, Faculty of Medicine, School of Health Sciences, University of Thessaly, Larissa, Greece
2. Anesthesiology Department, University Hospital of Larissa, Faculty of Medicine, School of Health Sciences, University of Thessaly, Larissa, Greece



# Medical History

- ✓ 82 year-old
- ✓ Male

## *Medical history significant for*

- Previous EVAR (Treovance, Bolton 5 years ago)
- Current smoker
- Hypertension
- Dyslipidaemia
- CAD (EF 35%)
- COPD



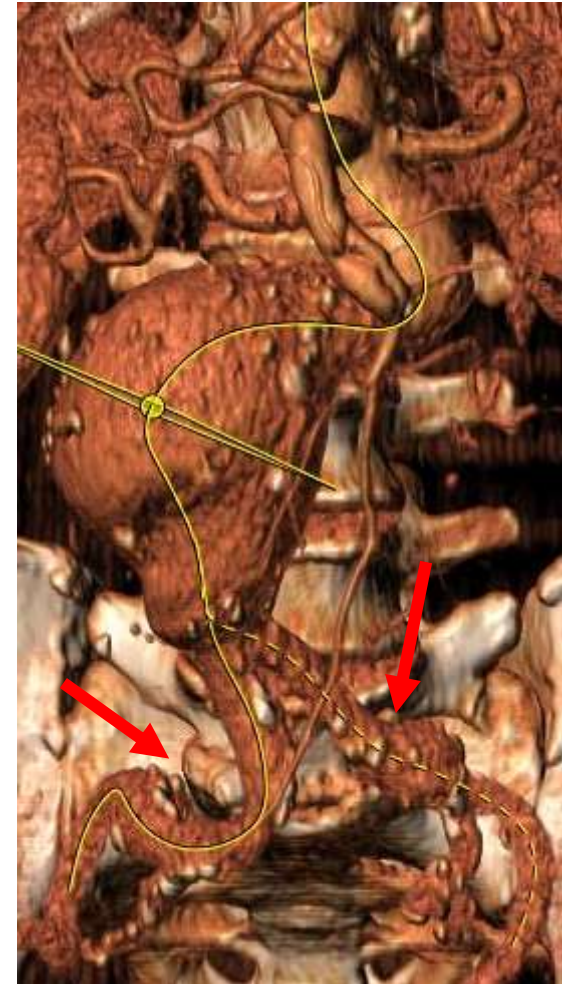


## Standard EVAR 5 years ago

- ✓ AAA, Dmax 85mm
- ✓ *Iliac aneurysms bilaterally 21-23mm*

### *At that moment*

- 77 years old
- Mild cardiac insufficiency
- COPD

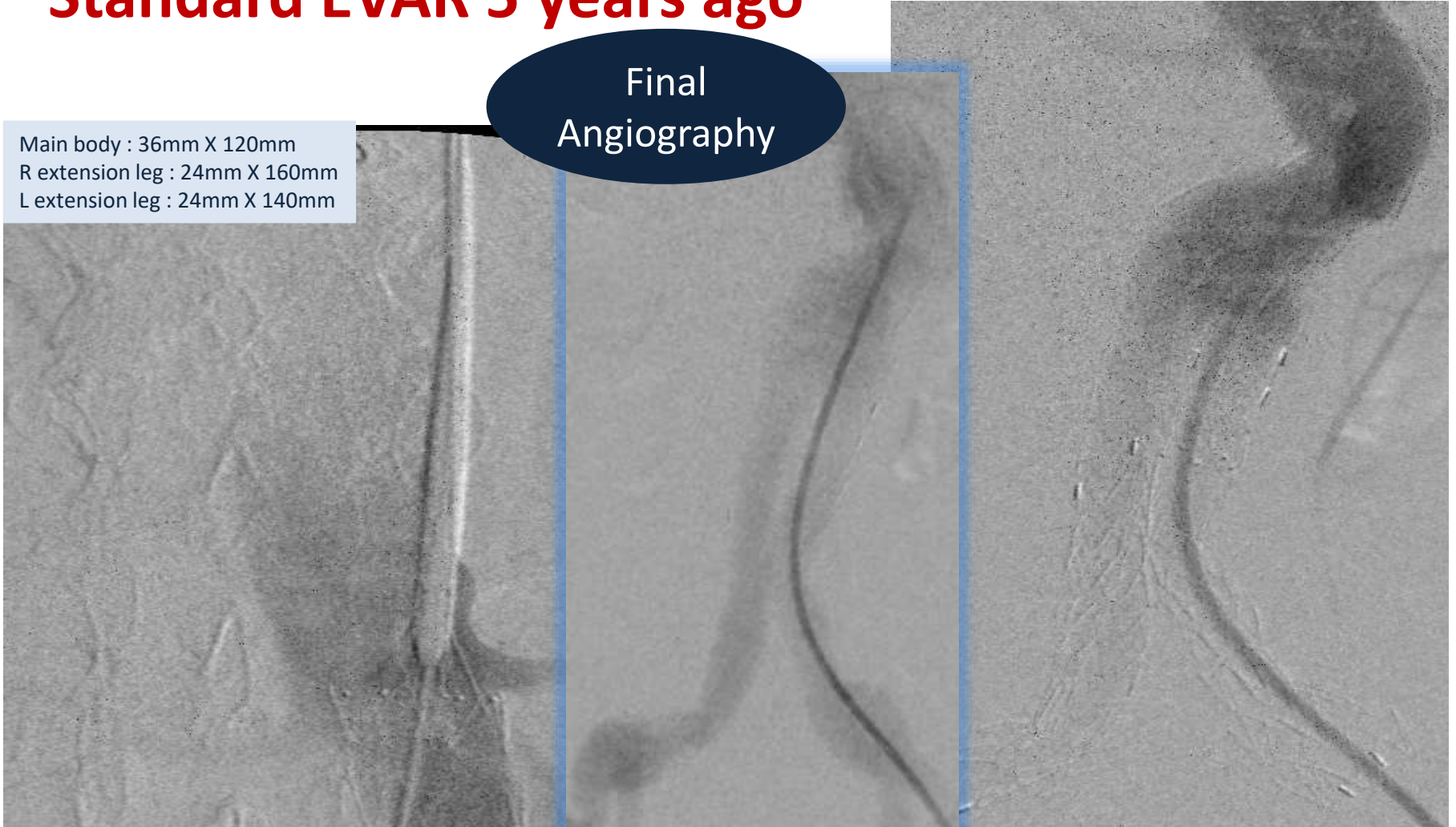




# Standard EVAR 5 years ago

Final  
Angiography

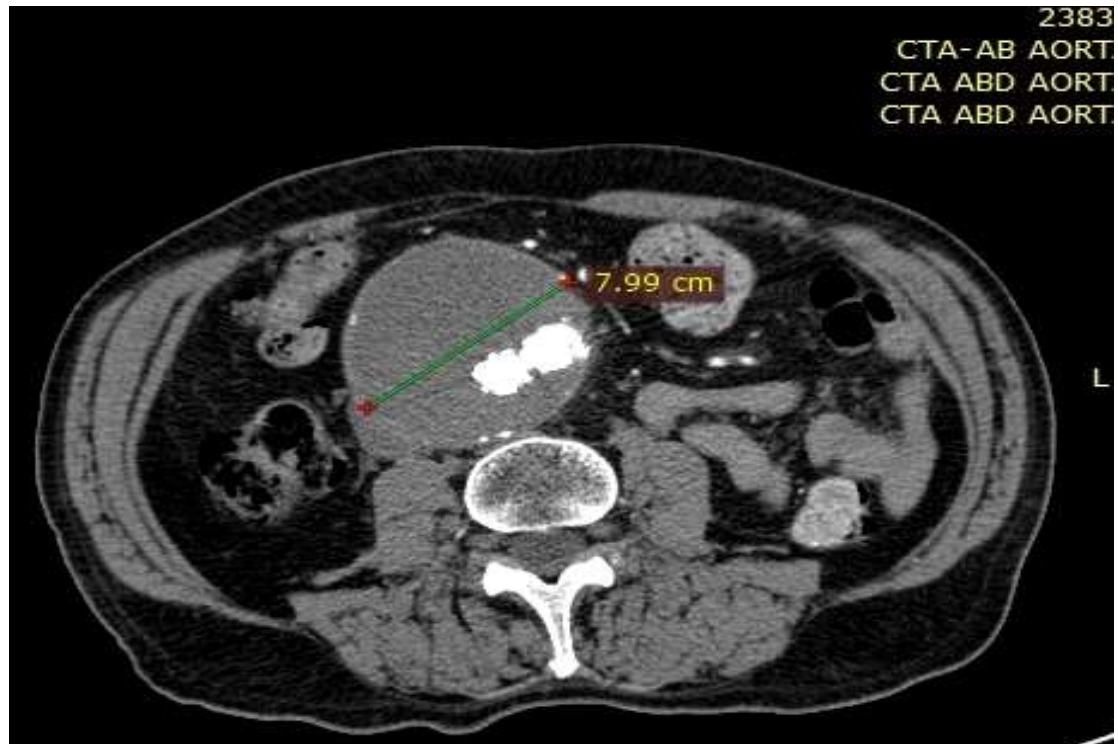
Main body : 36mm X 120mm  
R extension leg : 24mm X 160mm  
L extension leg : 24mm X 140mm





# 1<sup>st</sup> month FUP after sEVAR

- ✓ No endoleak
- ✓ Sac regression
- ✓ Good general status

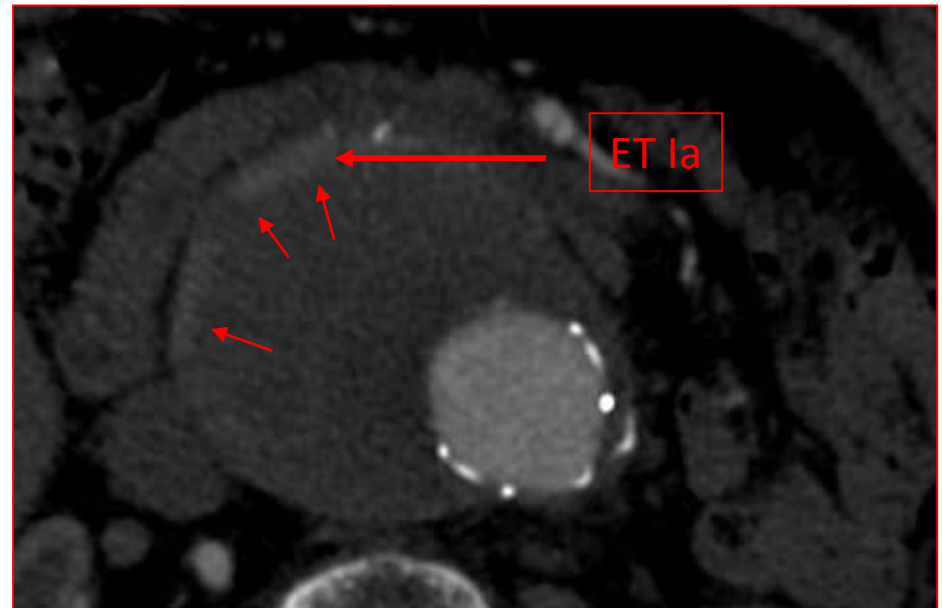




*Then patient was lost to follow-up...*

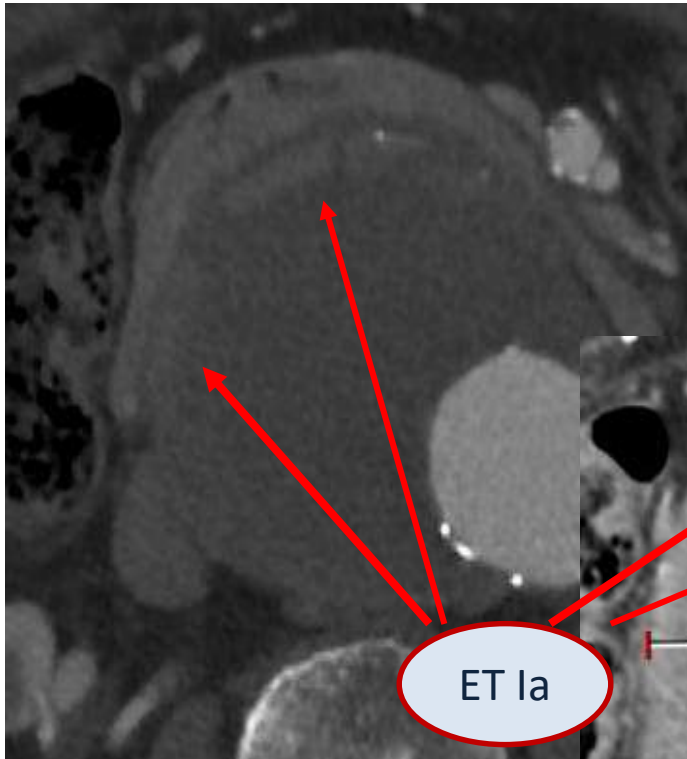
*...5 years afterwards, CTA for abdominal pain*

- ET Ia due to neck dilatation, endograft still in initial position
- *Sac expansion 85mm*
- CIAs aneurysm & ET Ib

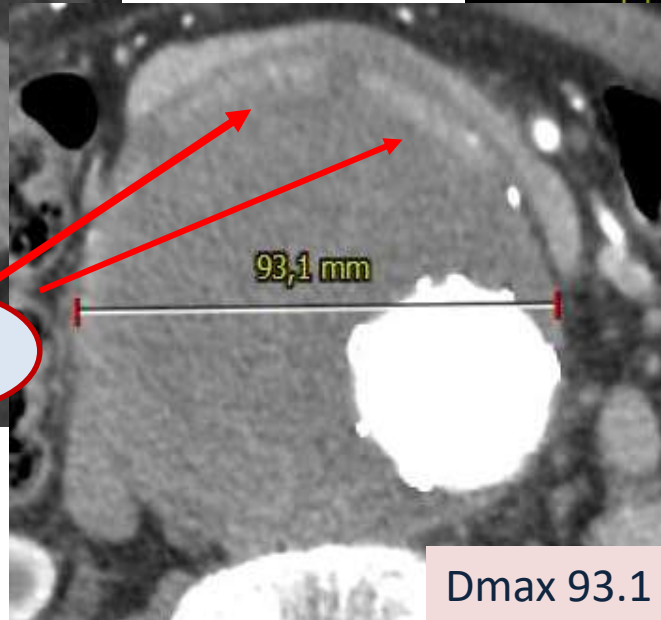




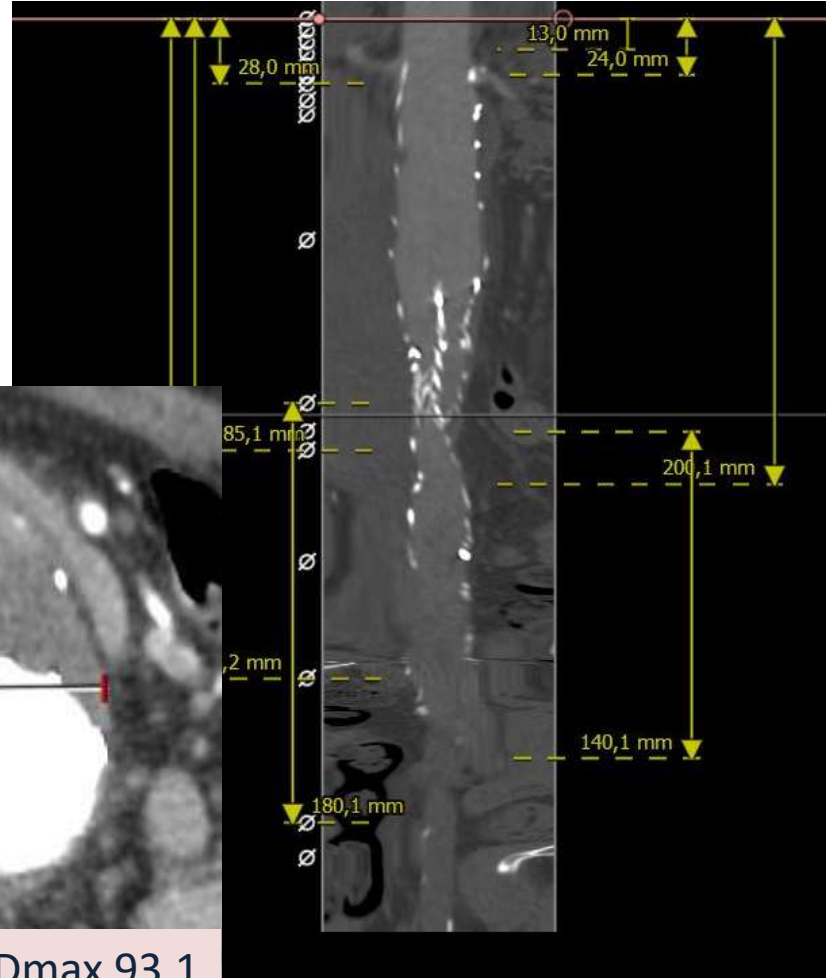
# Pre-operative CTA



ET Ia



Dmax 93.1





# Treatment options for proximal neck

- ✓ FEVAR
- ✓ T-Branch
- ✓ Chimney
- ✓ Open repair







# Treatment options for iliac landing zones

- ✓ Occlusion of IIAs bilaterally
- ✓ Preservation of both IIAs
- ✓ Preservation of one IIA & coiling of the contralateral



## *In a few words...*

- Thoracic endograft at the proximal neck

### *Keep in mind*

- ✓ Previous endograft with long main body (100mm)
  - ✓ Large supra-renal diameter of 36mm
- Three target vessels
    - ✓ All catheterized from above through the axillary arteries
  - Iliac Branched Endoprosthesis for the preservation of the LIIA
  - Coiling of the RIIA and limb extension



## Access

### Access via

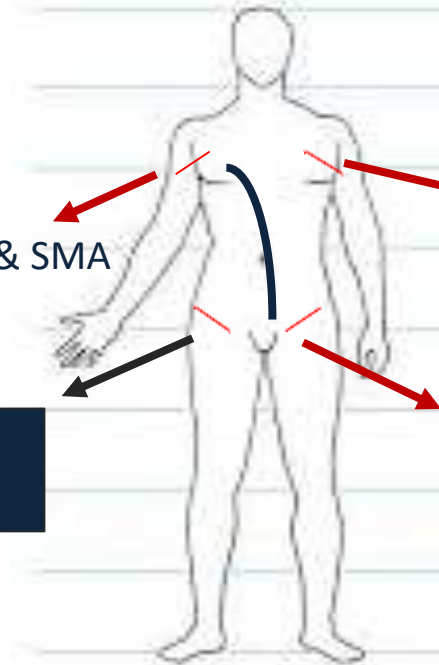
- ✓ Both axillary arteries
- ✓ Both femoral arteries

Catheterization of LIA & SMA

Main  
graft

Catheterization of LRA & RRA

Insertion of IBE



- Rosen wires
- ANL sheaths 8Fr

- General anesthesia
- 5000iu UFH, continuous re-evaluation with ACT measurements
- Cerebral oximetry



# Target vessels

**SMA**

Balloon-expandable covered stent 10x57mm

Relining with self-expanding stent 8x60mm

CT

**RRA**

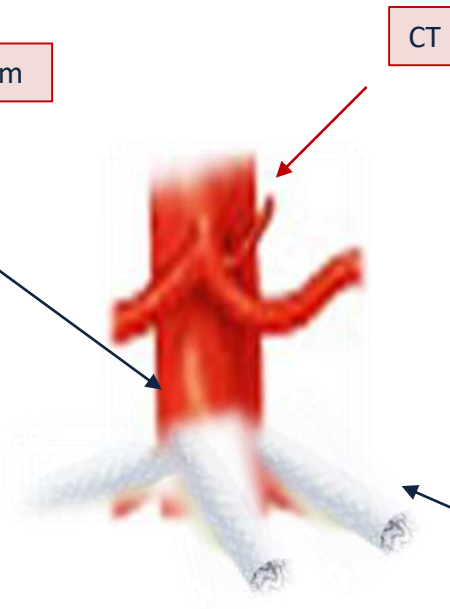
Balloon expandable covered stent 7x57mm

Relining with self-expanding stent 12x60mm

**LRA**

Balloon expandable covered stent 8x57mm

Relining with self-expanding stent 9x60mm



**May 9-11 2019**

**Larissa Imperial Hotel  
Larissa, GREECE**

<http://www.live2019.gr>

Organized by:



**Institute of Vascular  
Diseases (IVD), Greece**

In collaboration with:



Hellenic Society of Vascular and Endovascular Surgery



Stony Brook University Medical Center, New York, USA

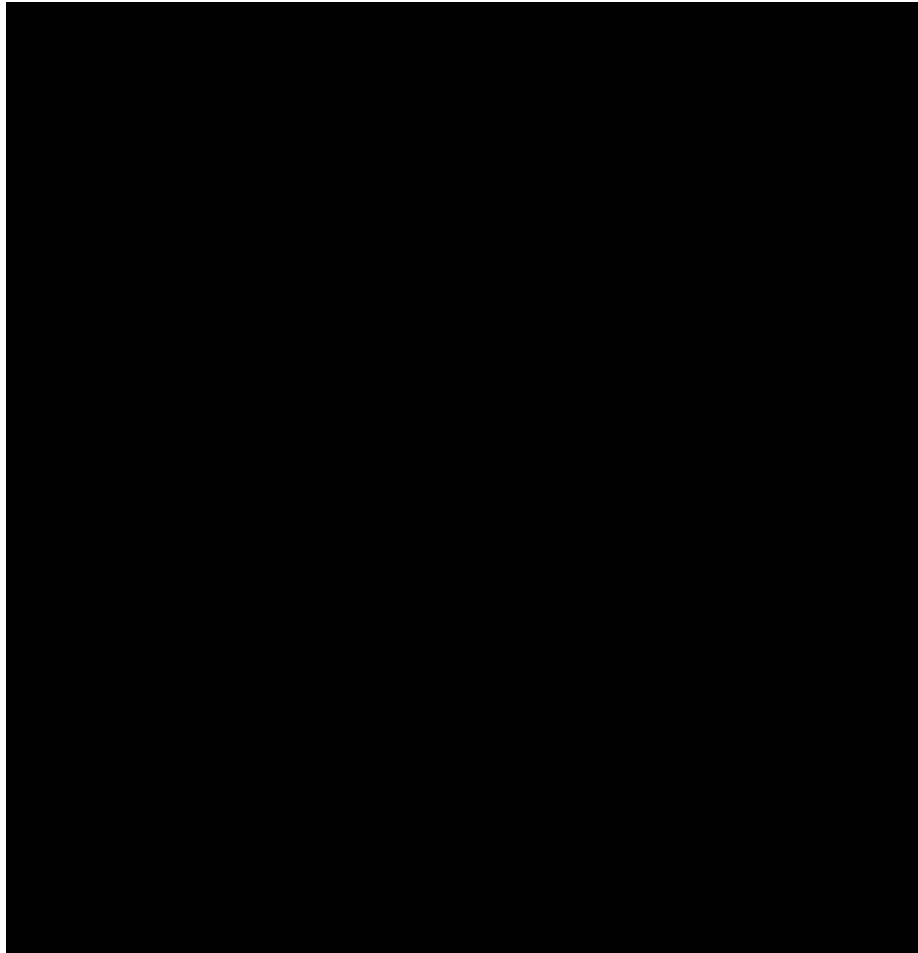


International Symposium on Endovascular Therapeutics



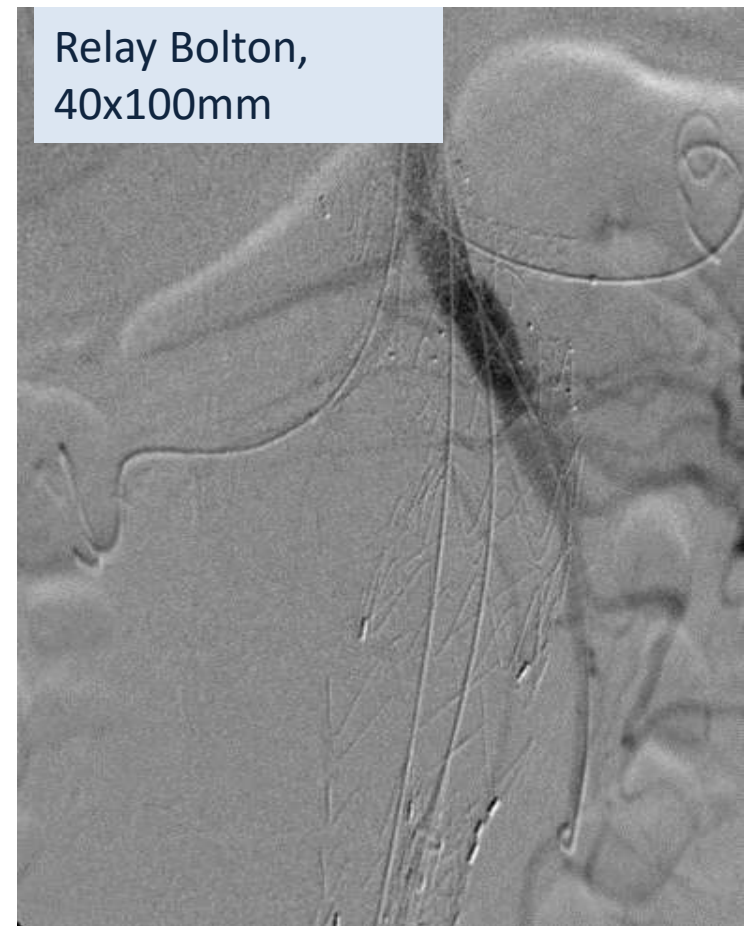
Intervention Master Aortic Course

**10<sup>th</sup>**  
ANNIVERSARY



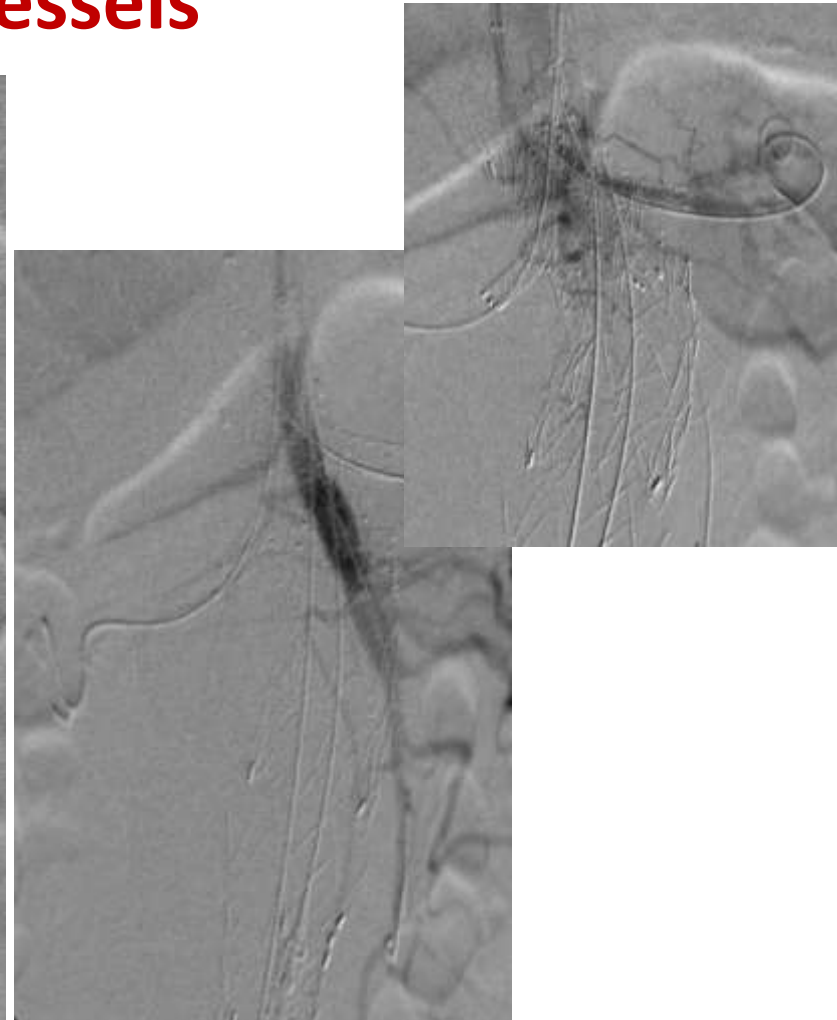
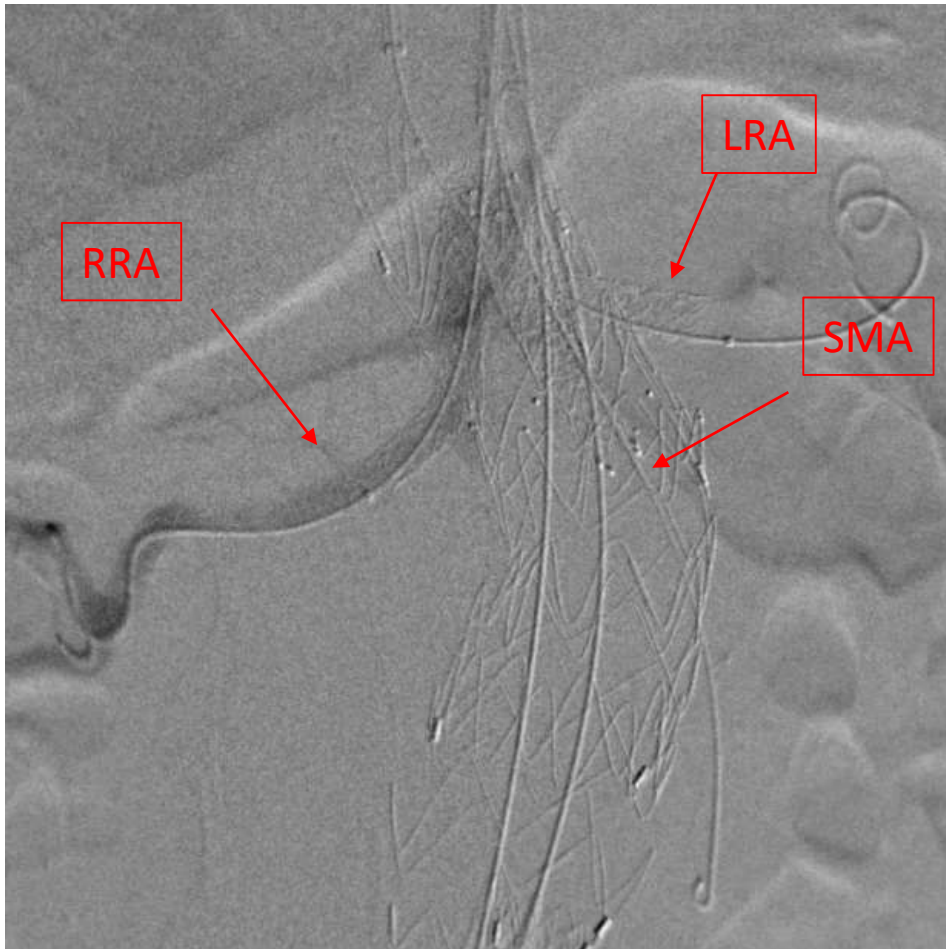


## IIA Preservation





# Target Vessels





## Intra-operative details

### *Intra-operative data*

- ✓ 1 RBC
- ✓ Contrast 180ml
- ✓ Radiation 606mGy (102min)
- ✓ Duration of operation 240 min



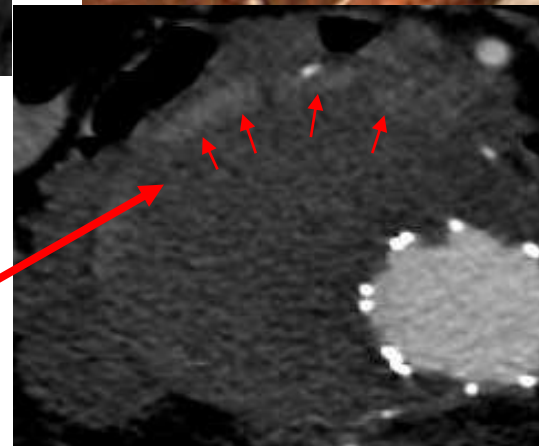
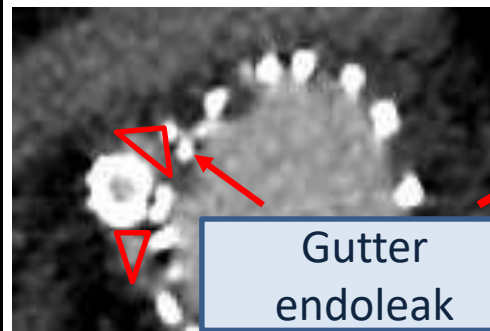
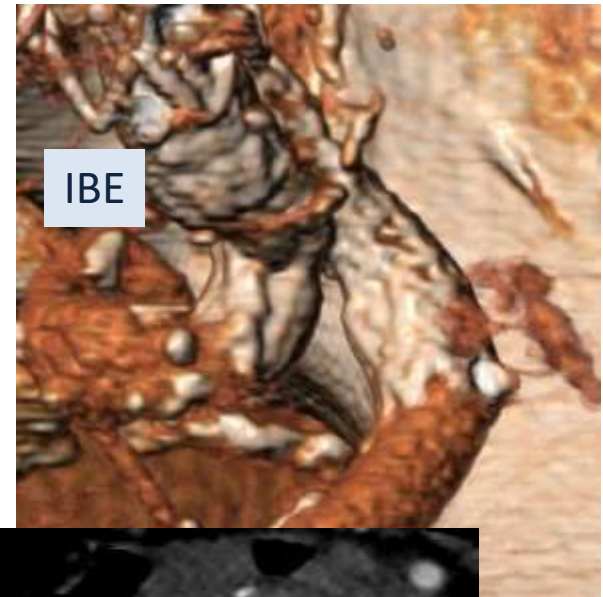
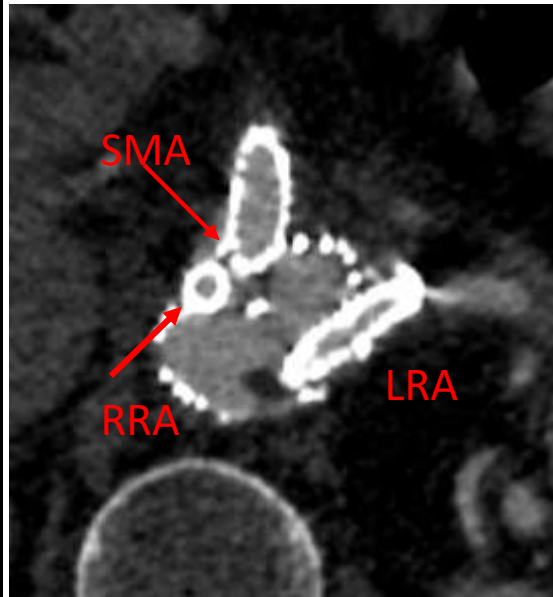
Patient transferred to ward  
under close monitoring

*No need for ICU*





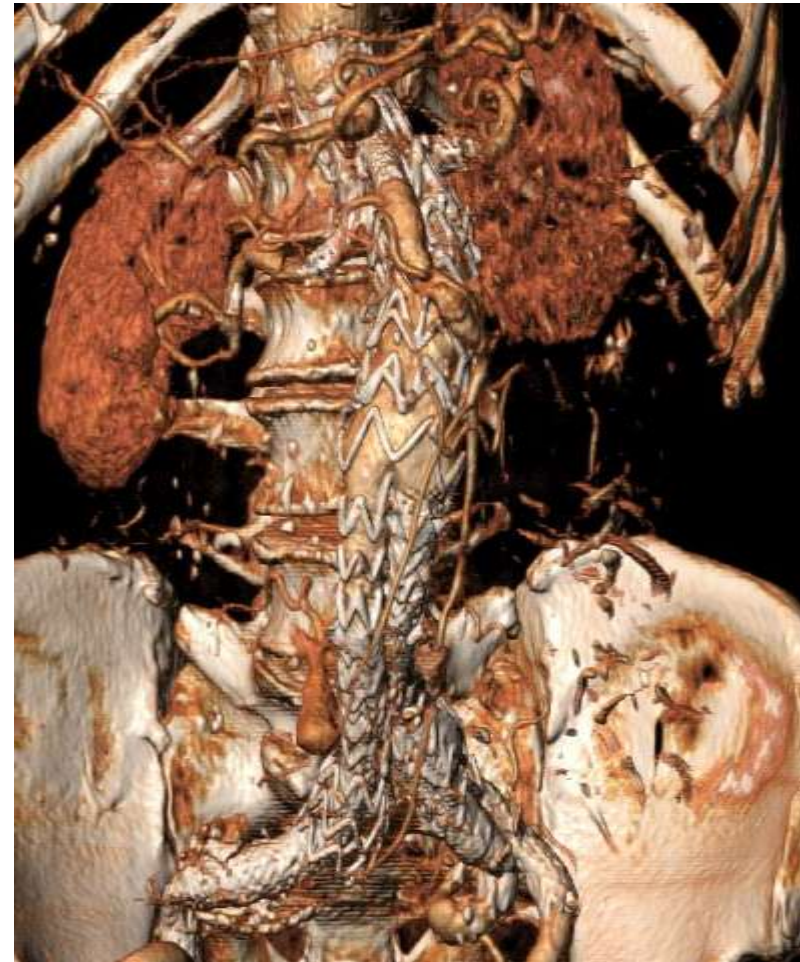
## Post-operative CTA before discharge





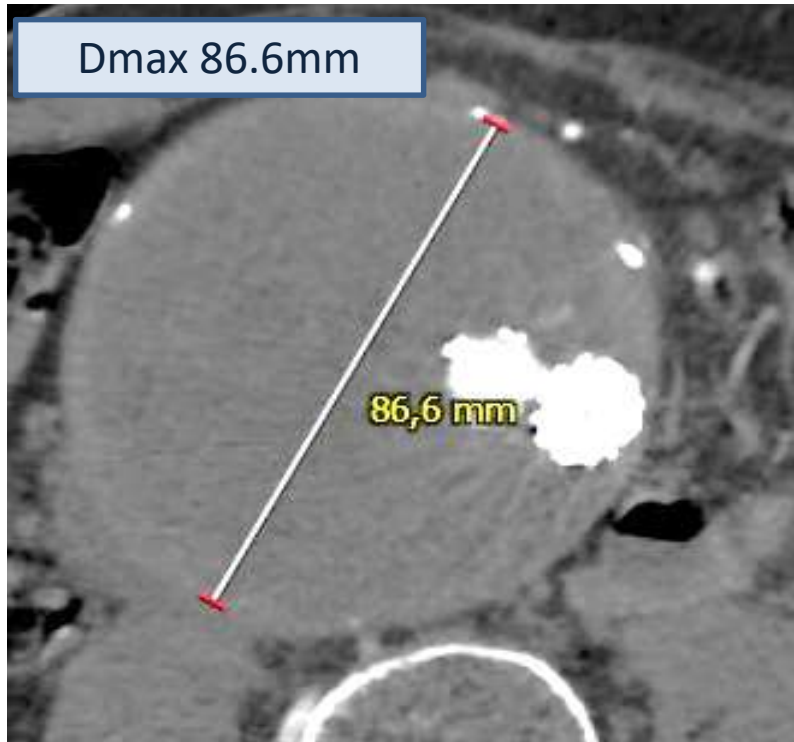
## 30-day follow-up

- ✓ No complication recorded (gutter endoleak disappeared)
- ✓ Good general status





## 30-day follow-up





Institute  
of Vascular Diseases (IVD),  
Greece

**LIVE** Larissa  
May 14-16  
2020

**SEMINAR** edition <sup>NEW</sup>

