

# Contemporary options for treating juxtarenal aneurysm when infrarenal sealing is not enough

Konstantinos P. Donas

Professor of Vascular Surgery

Head of the Department of Vascular Surgery, Director Research Vascular Centre (RVC)

Asklepios Clinic Langen, University of Frankfurt, Germany



# Disclosure

Speaker name:

.....

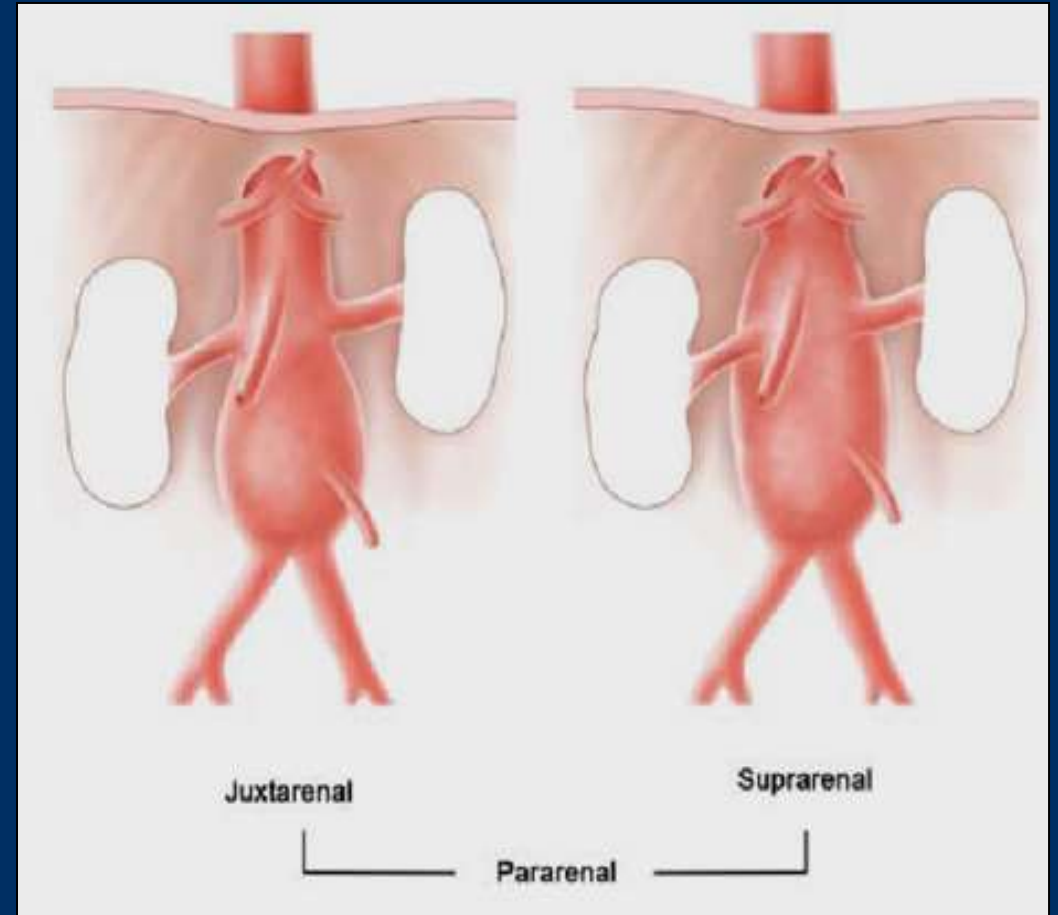
I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)
  
- I do not have any potential conflict of interest

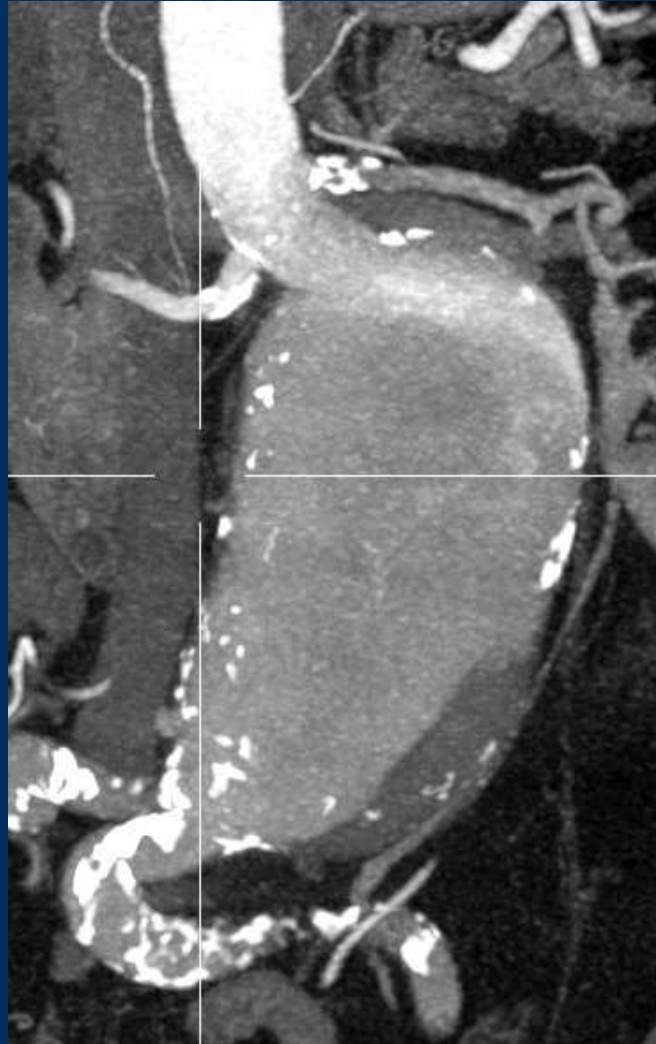


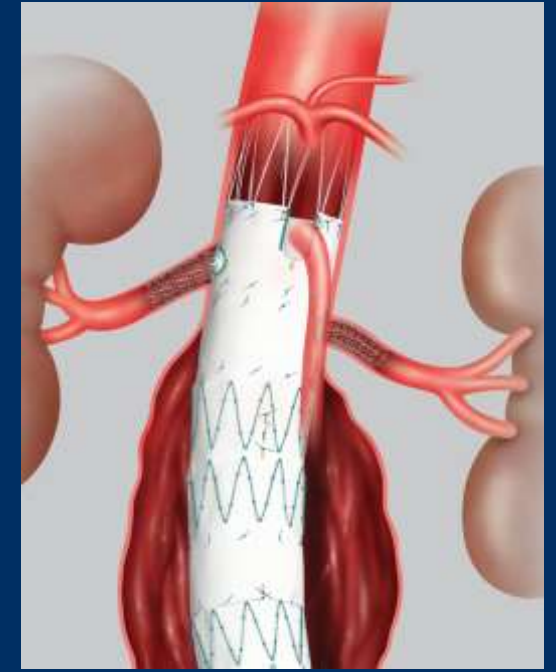
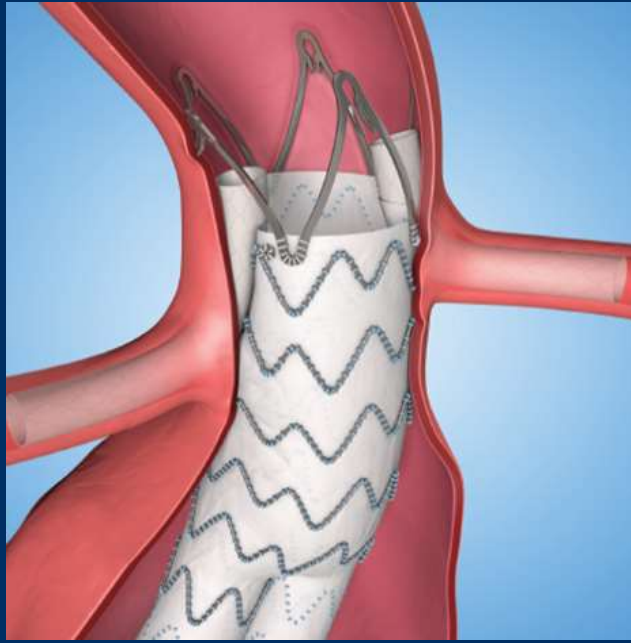
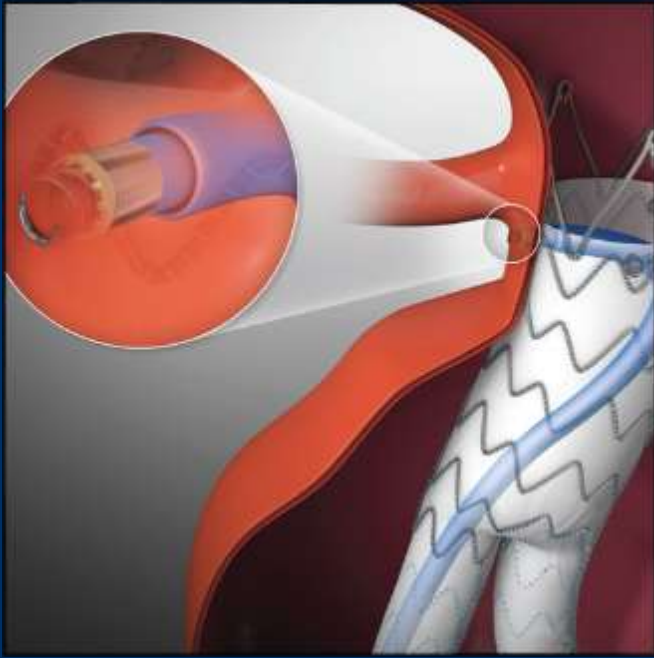
# Juxtarenal aneurysms

- Aneurysms with short infrarenal necks < 5mm length
- Aneurysms with involvement of **1** or max **2** renal arteries



# Short neck length in combination with other challenging issues





Needed proximal neck length	Max. Infrarenal neck angulation	Max. Main body Fr size OD
4 mm	60°	20Fr

Needed infrarenal neck length	Max. infrarenal neck angulation	Max. Main body Fr size OD
2 mm	60°	20 Fr

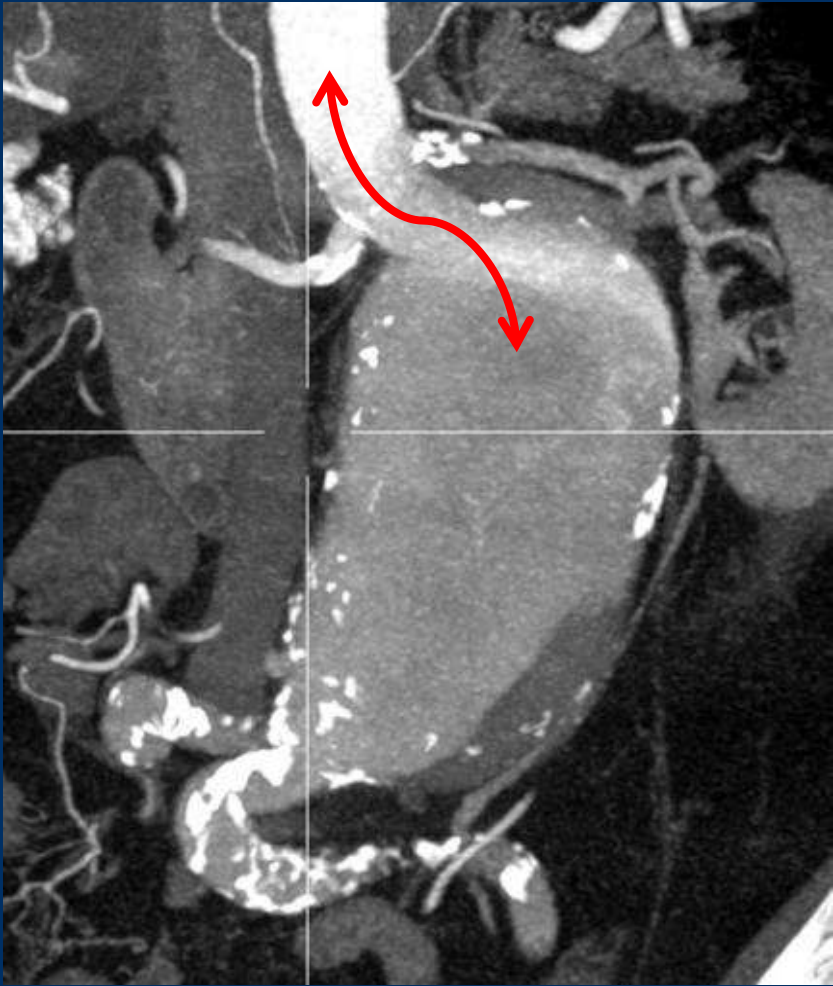
Proximal neck length	Infrarenal neck angulation	Max. Main body Fr size OD
4	45°	22-25



# IMPACT OF IFU IN DECISION MAKING



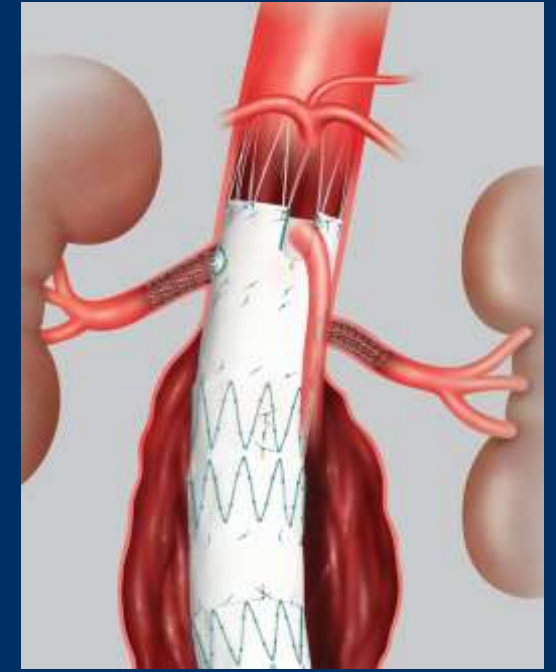
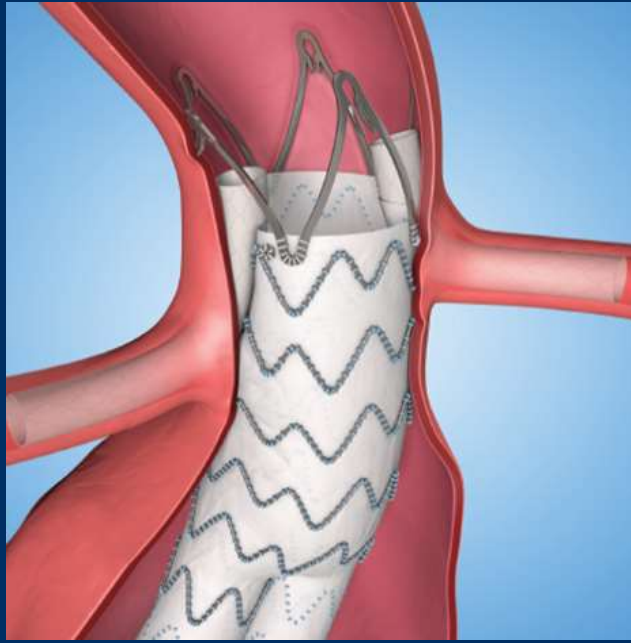
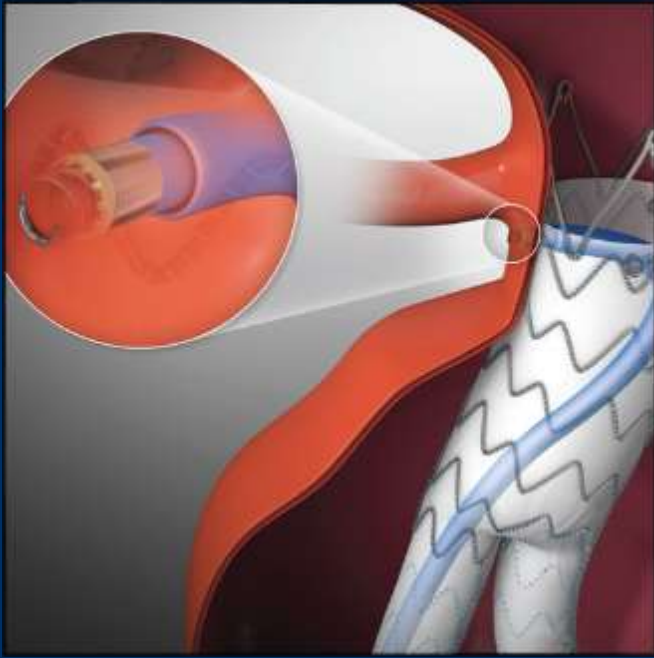
# IMPACT OF IFU IN DECISION MAKING



# RENOVISCERAL MORPHOLOGY







Needed proximal neck length	Max. Infrarenal neck angulation	Max. Main body Fr size OD
4 mm	60°	20Fr

Needed infrarenal neck length	Max. infrarenal neck angulation	Max. Main body Fr size OD
2 mm	60°	20 Fr

Proximal neck length	Infrarenal neck angulation	Max. Main body Fr size OD
4	45°	22-25

# Importance of preoperative planning and sizing

Technical Note

JOURNAL OF  
**ENDOVASCULAR**  
THERAPY  
A SAGE Publication  
Official publication of the  
Society for Interventional Endovascular Surgery (ISEVS)

## Preoperative Planning for EndoAnchor Use During Thoracic Endovascular Aortic Repair in the Distal Aortic Arch

Journal of Endovascular Therapy  
1–5

© The Author(s) 2020




Article reuse guidelines:

[sagepub.com/journals-permissions](http://sagepub.com/journals-permissions)

DOI: 10.1177/1526602820963865

[www.jevt.org](http://www.jevt.org)



Hector W. L. de Beaufort, MD, PhD<sup>1</sup> , Luigi Lovato, MD<sup>2</sup> ,  
Andrés Reyes Valdivia, MD, PhD<sup>3</sup> , Theodoros Kratimenos, MD<sup>4</sup>,  
Giovanni Rossi, MD<sup>5</sup>, Hervé Rousseau, MD, PhD<sup>6</sup>,  
Vicente Rimbau, MD, PhD<sup>7</sup>, and Robin H. Heijmen, MD, PhD<sup>1,8</sup>

# Importance of preoperative planning and sizing

## The PROTAGORAS 2.0 Study to Identify Sizing and Planning Predictors for Optimal Outcomes in Abdominal Chimney Endovascular Procedures

Stefano Fazzini <sup>a,b,\*</sup>, Ombretta Martinelli <sup>b</sup>, Giovanni Torsello <sup>c</sup>, Martin Austermann <sup>a</sup>, Marco Damiano Pipitone <sup>a</sup>, Giovanni Federico Torsello <sup>d</sup>, Luigi Irace <sup>b</sup>, Konstantinos P. Donas <sup>e</sup>

<sup>a</sup> Department of Vascular Surgery, St Franziskus Hospital, Münster, Germany

<sup>b</sup> Unit of Vascular Surgery, Department of Surgery Paride Stefanini, Sapienza University of Rome, Rome, Italy

<sup>c</sup> Institute for Vascular Research, St. Franziskus Hospital, Münster, Germany

<sup>d</sup> Department of Radiology, Charité Campus Virchow-Klinikum, Charité University Medicine, Berlin, Germany

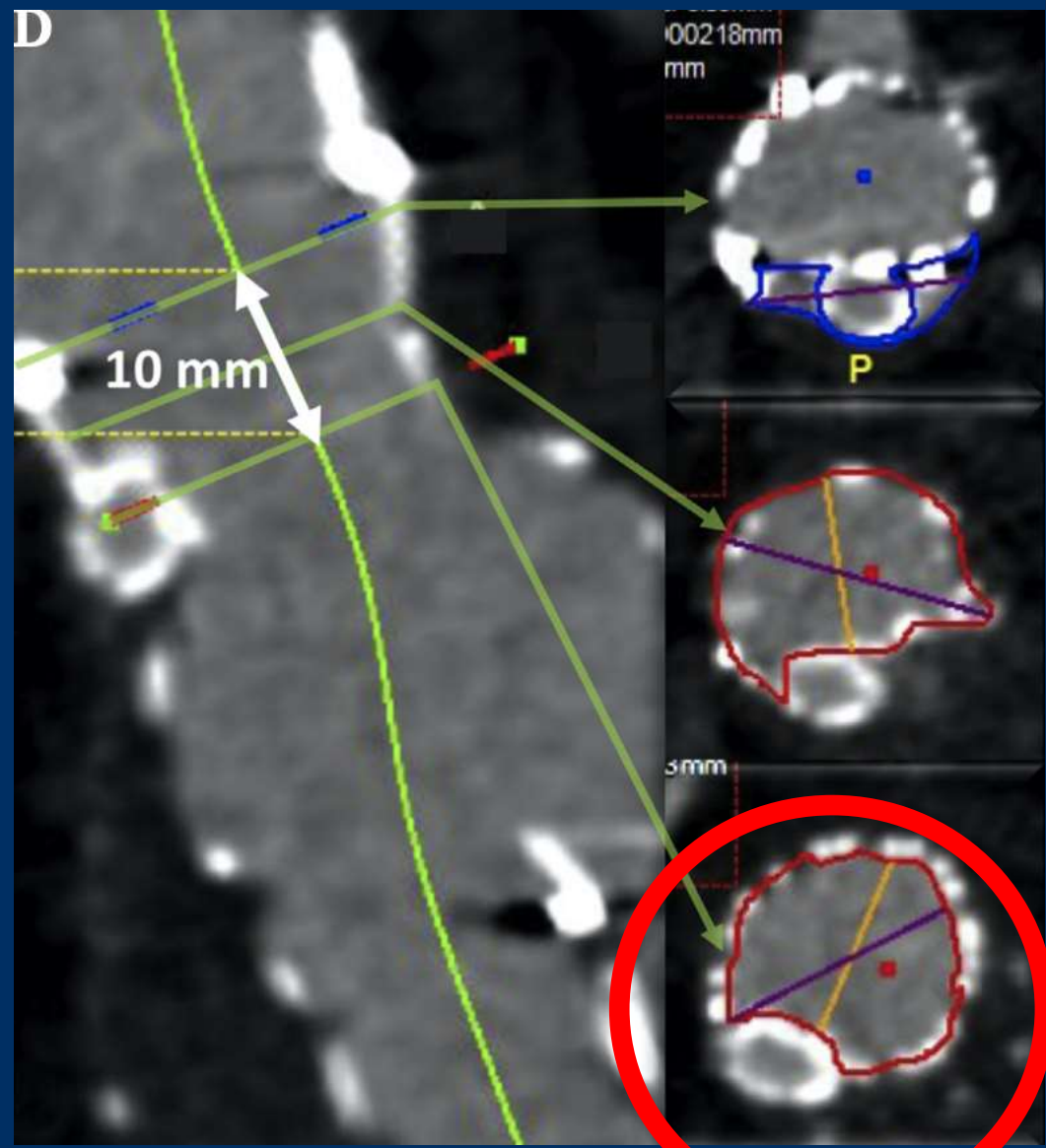
<sup>e</sup> Department of Vascular Surgery and Research Vascular Centre, Asclepios Clinic Langen, University of Frankfurt, Langen, Hessen, Germany

### WHAT THIS PAPER ADDS

For the first time, a single parallel graft combination is evaluated using late clinical outcomes and computed tomography angiography based pre/post-operative imaging in order to identify significant predictors for optimising sizing and preventing persistent type Ia endoleaks and chimney graft stenosis/occlusion. In contrast to prior reports which recommended a range of oversizing between 20% and 30%, this study showed that the aortic stent graft should be oversized by at least 30%, particularly for hostile neck anatomies. Moreover, increase in the total neck length cannot guarantee adequate sealing without 30% oversizing.



# Importance of preoperative planning and sizing





Contemporary options for treating juxtarenal aneurysm when infrarenal sealing is not enough

## ESAR/CHEVAR/FEVAR

Complementary approaches

Preoperative patient selection and case planning are paramount to achieve durable results

