

IOPS<sup>®</sup> 3D Navigation Assists In Complex Endovascular Aneurysm Repair

# LEAD CLINICIAN

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### HOSPITAL

Vanderbilt University Medical Center Nashville, Tennessee

# **PROCEDURE TYPE**

Complex Endovascular Aneurysm Repair (EVAR) with Zenith Fenestrated Endovascular Graft (ZFen)

#### BRIEF

A complex EVAR procedure was performed with IOPS for precision access during placement of a fenestrated endovascular graft (Cook Medical, LLC). Using IOPS as the primary visualization platform, Dr. Clair was able to view the aortic branches and navigate through the fenestrations of the endograft accessing the heavily calcified target branch vessels. Both left and right renal arteries were successfully cannulated in quick succession with the IOPS Guidewire.

# **CASE INFORMATION**

**Patient Information:** 77-year old male presented with an aortic dissection following prior descending aortic aneurysm repair treated with TEVAR (thoracic endovascular aortic repair). The patient had significant calcification throughout the vasculature. History of PAD.

**Scan Protocol:** Pre-operative CT arteriogram scan; intra-operative cone-beam CT scan

Location: Left and Right Renal Arteries

Instruments Used: IOPS Guidewire, steerable sheath, and Cook CXI® Support Catheter



**Cannulation Time:** Right Renal through Fenestration - 3:22 Left Renal through Fenestration - 0:57



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### **PRE-OPERATIVE**

An aortic model was created using the preoperative CTA. The IOPS self-adhesive fiducial tracking pad was attached to the patient's lumbar region and the angiography system was used to perform a non-contrast cone-beam CT scan. The cone-beam CT was then loaded on the IOPS cart to create an up-to-date patient anatomical model.

# **PROCEDURE DETAILS**

After obtaining arterial access in the common femoral artery, the IOPS Guidewire was advanced with a steerable sheath and catheter into the abdominal aorta. The calcifications in the target branch vessel ostia presented a challenge for flat, grayscale fluoroscopic navigation. However, with IOPS 3D visualization, Dr. Clair was able to easily guide the devices through the complex vasculature to successfully cannulate both the left and right renal arteries through the fenestrations of the partially deployed graft.





Learn more about IOPS