

## AUTHOR

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Dr. Carlos Rosales  
Vascular Surgeon  
Allegheny General Hospital  
Pittsburgh, PA

## CASE INFORMATION

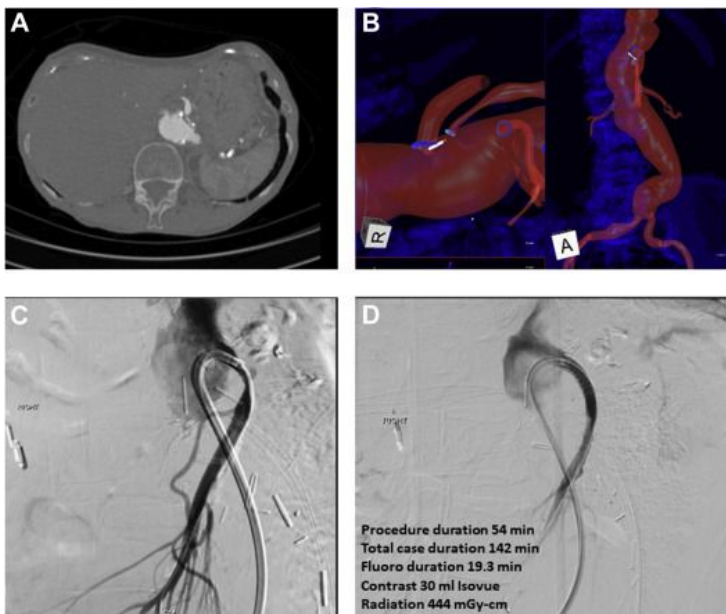
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**Patient Information:** 81 year old female  
**Scan Protocol:** 1mm CTA ; Intraoperative cone beam spin  
**Location:** Descending Aorta/Abdominal Aortic Segment  
**Aneurysm Size:** 4 cm  
**Instruments Used:** 6F Ansel 1 45-cm sheath,  
5F 0.035" SOS catheter, IOPS guide wire,  
6F TourGuide steerable sheath  
**Procedure Duration:** 54 min  
**Cannulation Time:** SMA cannulated in 45 seconds  
**Total Case Duration:** 142 min  
**Fluoro Duration:** 19.3 min  
**Contrast:** 30 mL Isovue  
**Radiation:** 444 mGy

## OBSERVATIONS

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"IOPS' current 3-D image guidance is a phenomenal tool for difficult cannulations, which are some of the most challenging and radiation-intensive parts of these surgeries. I am also very excited about the future potential of the IOPS platform."



## PATIENT HISTORY

An 81-year-old woman presented with weight loss and postprandial abdominal pain. She had undergone open aortic aneurysm repair. CTA revealed a tortuous 4-cm para-visceral aorta, near-total celiac (CA) occlusion, occluded inferior mesenteric artery (IMA), and critical superior mesenteric artery (SMA) stenosis.

## PRE-OPERATIVE

An aortic model was created using the preoperative CTA. A self-adhesive sterile fiducial tracking pad is attached to the patient's lumbar region, and the angiography system is used to perform a non-contrast cone-beam CT scan. The cone-beam CT volume was then loaded on the IOPS cart and manually aligned with the preoperative CT volume.

## PROCEDURE

The IOPS wire was inserted into a 5F SOS catheter and advanced using the IOPS console images, without fluoroscopy. The SMA was cannulated in 45 seconds. Cannulation was confirmed by fluoroscopy. Following an unsuccessful attempt to seat the catheter in the SMA, wire access was lost. The SMA was accessed again with IOPS after replacing the Ansel 1 sheath with a 6-French TourGuide Steerable Sheath. Contrast injection confirmed severe stenosis in the proximal SMA, which was treated with a 6mm x 22mm iCAST Covered Stent. Completion angiogram demonstrated wide patency.

Muluk et al., Successful endovascular treatment of severe chronic mesenteric ischemia facilitated by intraoperative positioning system image guidance. *J. Vasc. Surg. Cases Innov. Tech.* March 2022  
<https://www.sciencedirect.com/science/article/pii/S2468428721001908>

