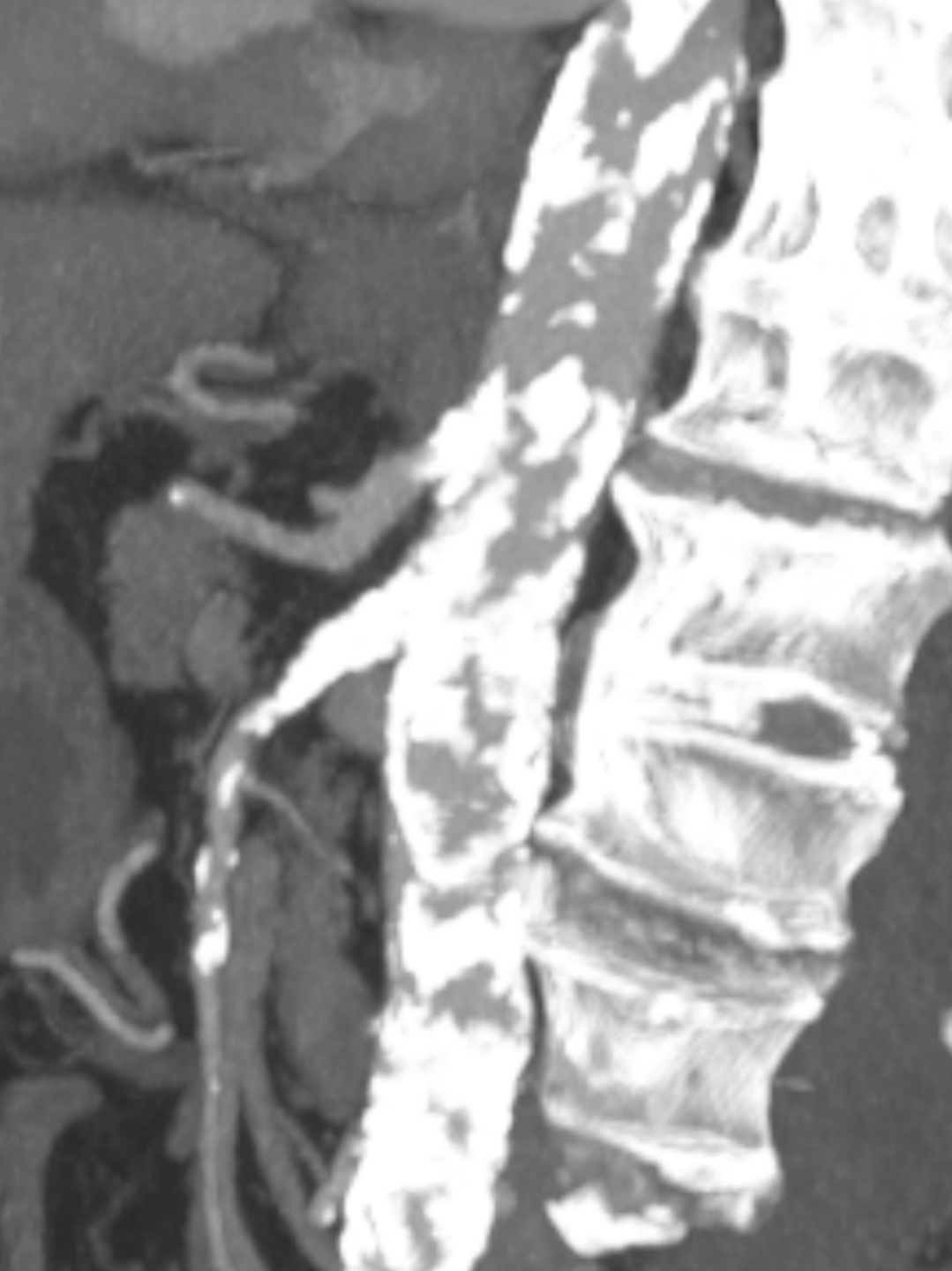


Clampless Anastomosis on the Supraceliac Aorta for Aorto- mesenteric Bypass

Raphaël Coscas, MD, PhD
Ambroise Paré University Hospital
and UVSQ Paris-Saclay University, France



Case

A 74 yo patient presented with critical intestinal ischemia. Preop CT-scan showed complete occlusion of the celiac trunk and the superior mesenteric artery (SMA) due to highly calcified lesions starting at the arteries' ostia.

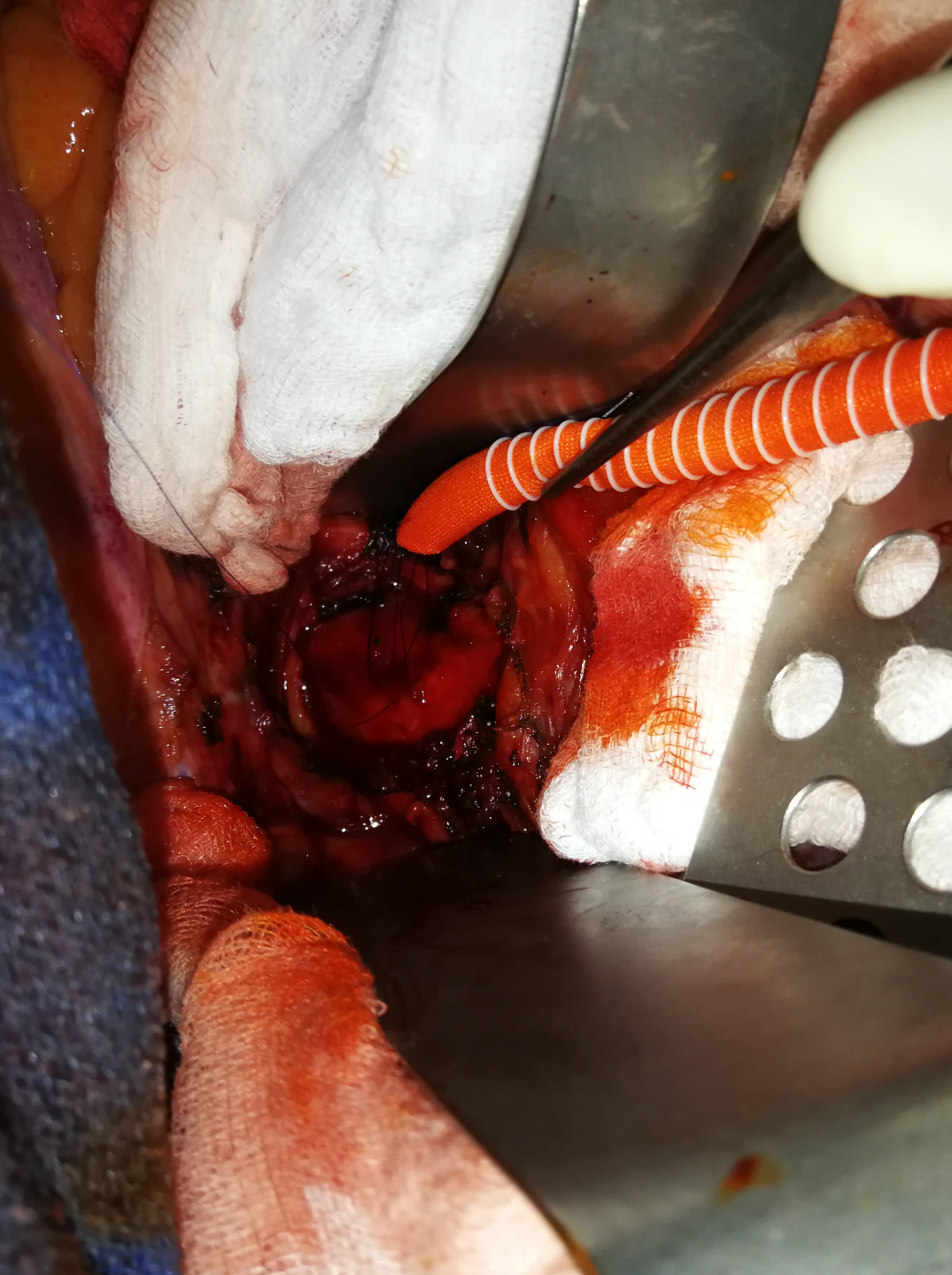
A bypass to the SMA was decided. However, the whole abdominal aorta and the iliac arteries had severe calcifications and previous stents were noted in both iliac arteries.

The anterior supraceliac artery was free. An aorto-mesenteric bypass using a clampless anastomosis on the supraceliac aorta was decided.



Aortic exposure

A limited exposure of the anterior supraceliac aorta is obtained through laparotomy. It is the only zone where the aorta is without major calcifications



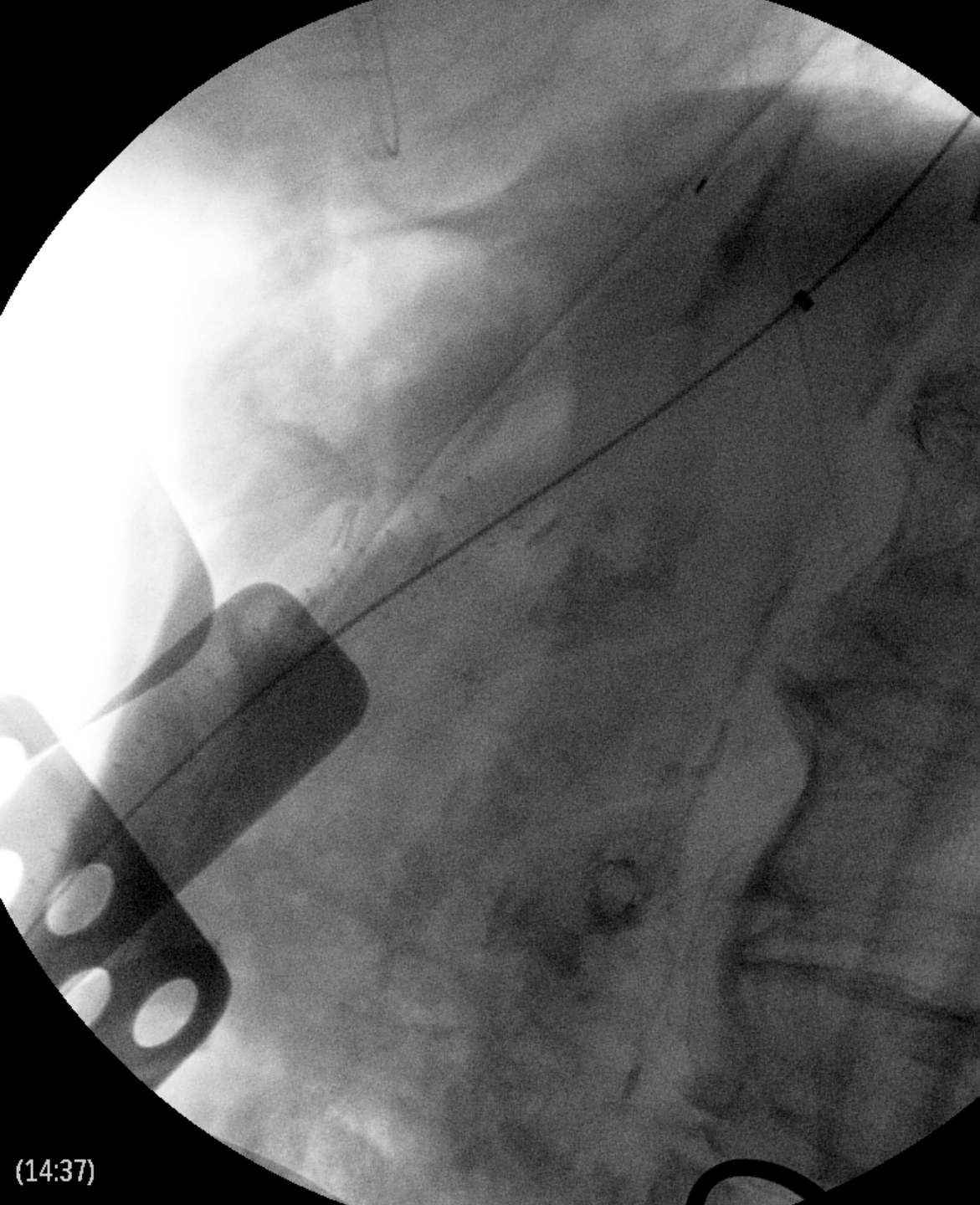
Technique

A 7-mm Fusion graft was quickly sutured to the supraceliac aorta without any arteriotomy or clamping, mimicking the final aspect of a side-to-end anastomosis



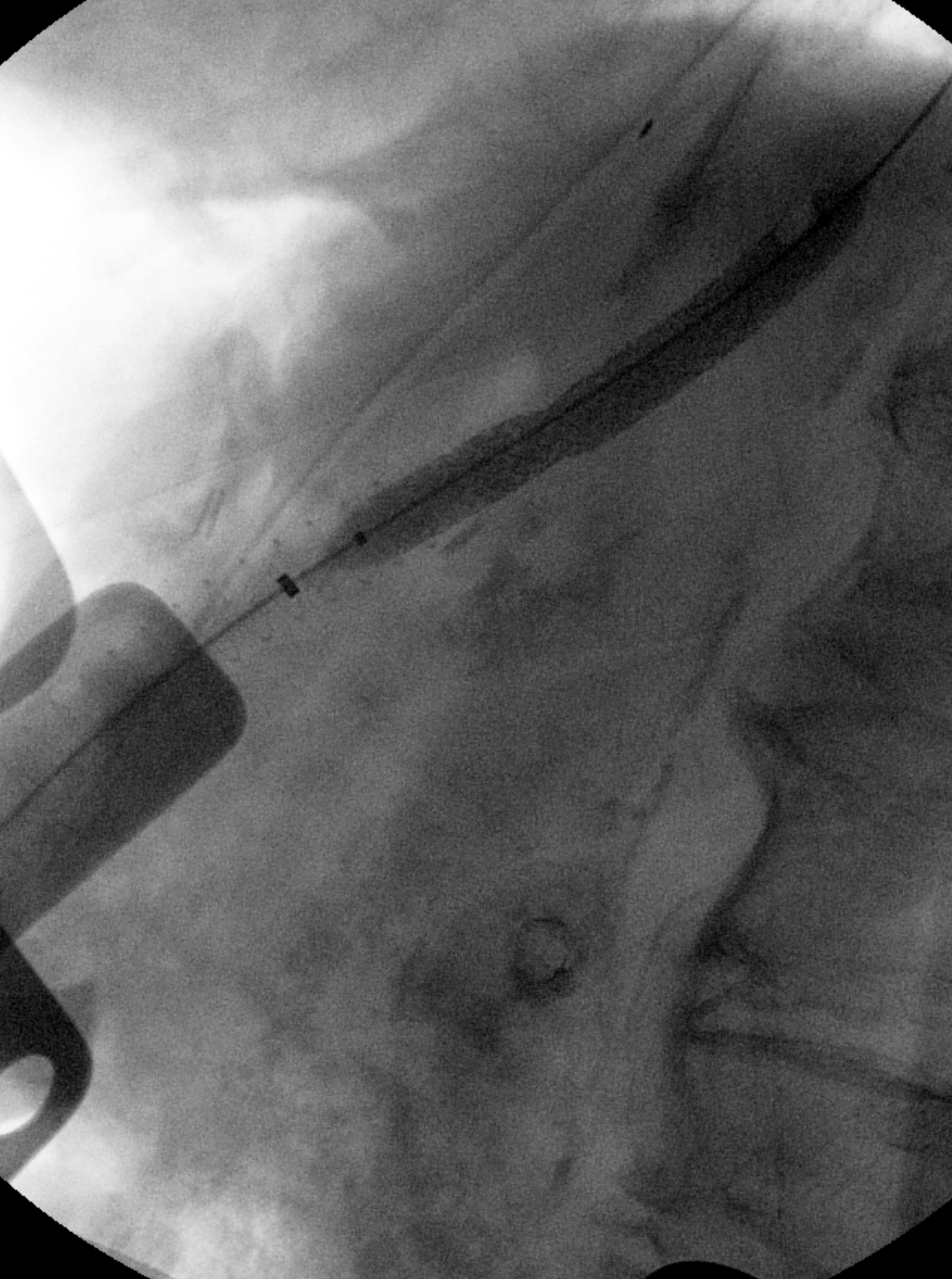
Technique

The distal graft and the anastomosis site were punctured using a long needle (cook Inc. ref ADN -18 -18.0)



Endovascular step

A 7 Fr
introducer
(cook inc.) was
then positioned
over a wire up
to the aorta.



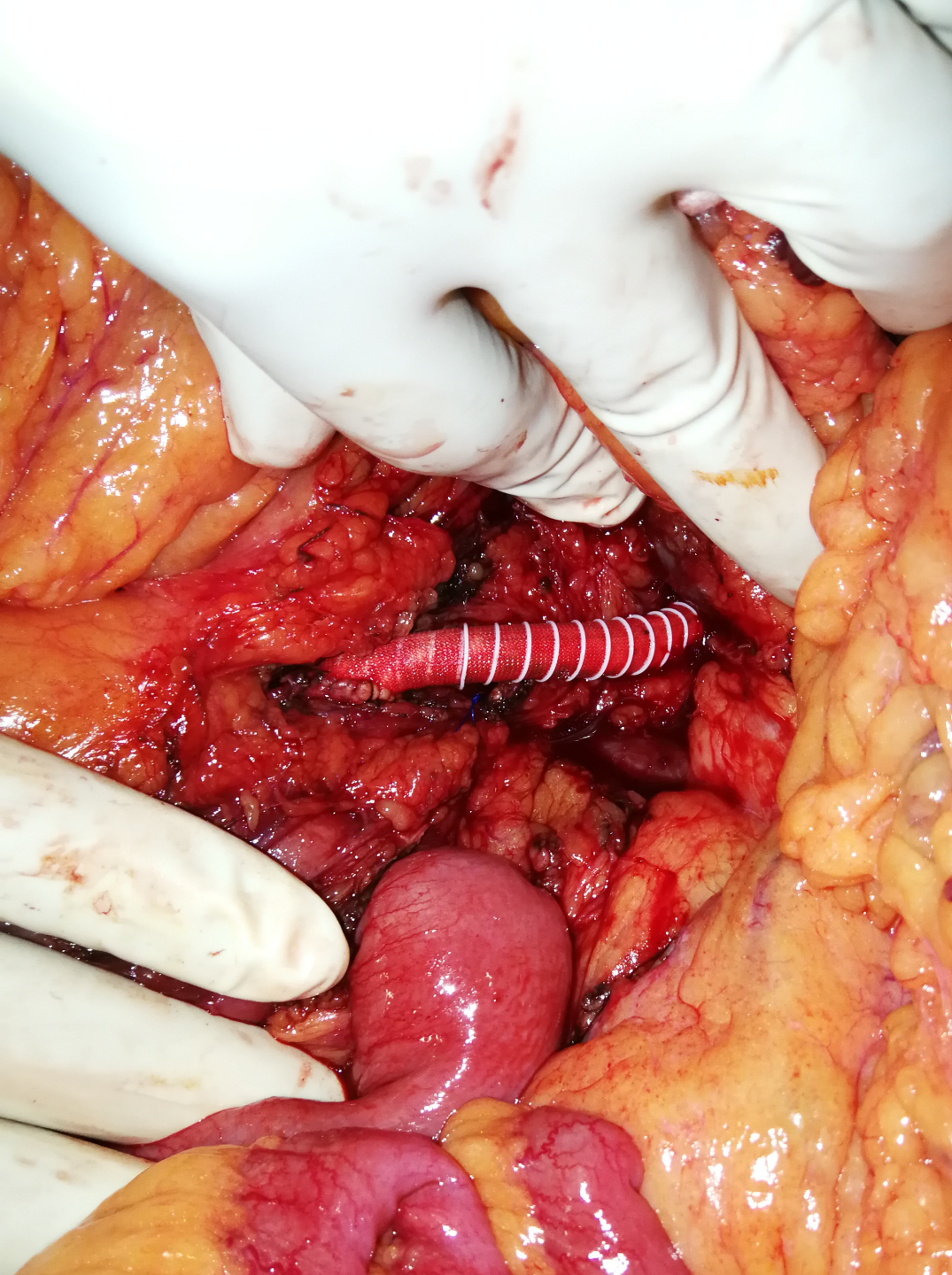
Endovascular step

Protected stenting (BeGraft) and opening of the anastomosis site was performed allowing pulsatile flow in the graft without any aortic clamping.



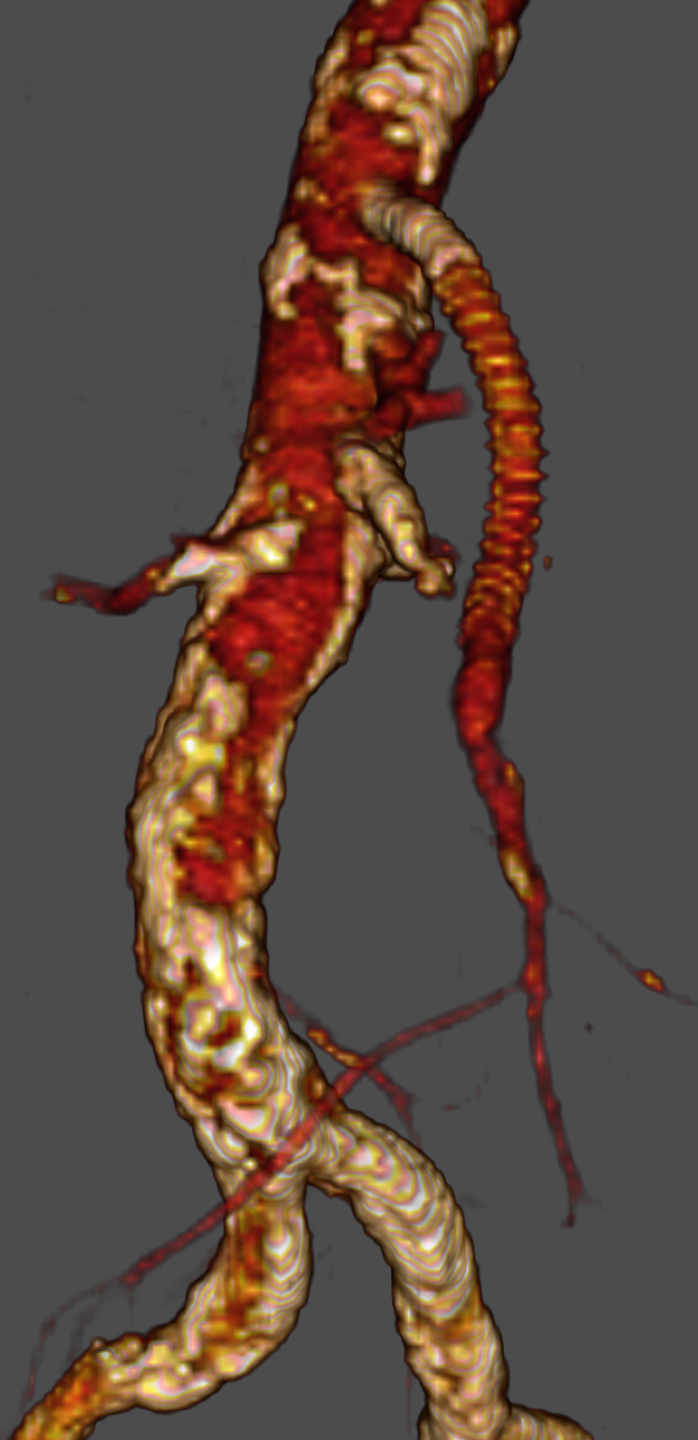
Endovascular step

Satisfactory result
on the completion
angiogram (close
to a chimney
aspect)



Final result

Finally, the graft was brought to the SMA using a retropancreatic tunnel. An end-to-end anastomosis was performed.



3 months later

Postop and 3-month CT-scan shows a patent revascularization to the SMA.

Patient is still alive and healthy without any sign of intestinal ischemia