

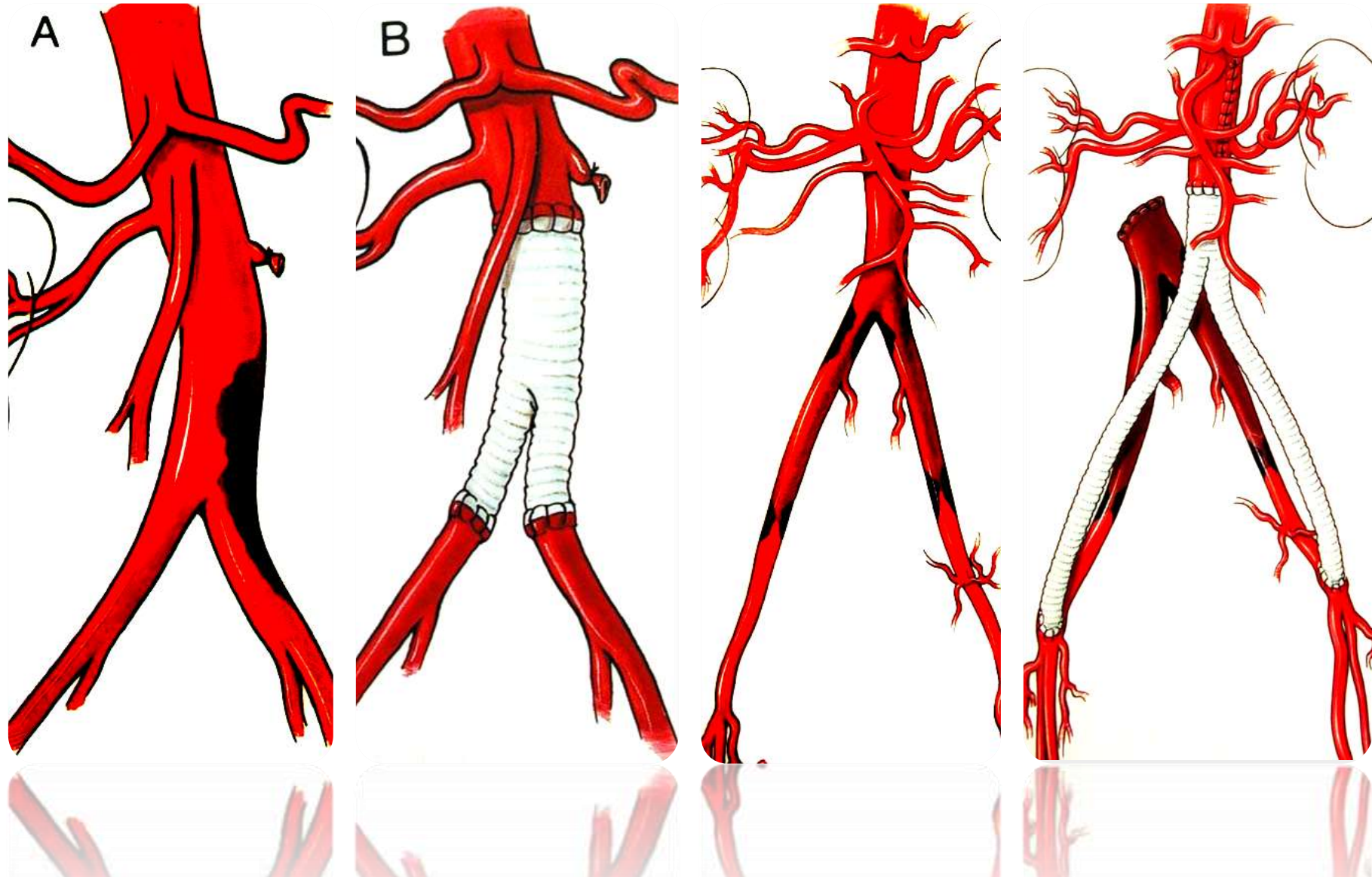
# Tratamiento Endovascular de la Oclusión Aortica



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# Opciones Quirúrgicas



## Review of direct anatomical open surgical management of atherosclerotic aorto-iliac occlusive disease.

Chiu KW, Davies RS, Nightingale PG, Bradbury AW, Adam DJ.

University of Birmingham, Department of Vascular Surgery, Heart of England NHS Foundation Trust, Netherwood House, Solihull Hospital, Birmingham, UK.



29 estudios 5738 pacientes

	<u>Mort</u>	<u>Morbi</u>	<u>Per 5 a</u>
•By pass aorto-femoral	4.1%	16%	86.5%
•By pass ilio-femoral	2.7%	18.9%	85.3%
•Endarterectomia aortoiliaca	2.7%	12.7%	88.3%



CLINICAL PRACTICE GUIDELINE DOCUMENT

Editor's Choice – European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Asymptomatic Lower Limb Peripheral Arterial Disease and Intermittent Claudication

Joakim Nordanstig, Christian-Alexander Behrendt, Iris Baumgartner, Jill Beich, Maria Bäck, Robert Fitzridge, Robert Hinchliffe, Anne Lejay, Joseph L. Mills, Ulrich Rother, Birgitta Sigvant, Konstantinos Spanos, Zoltán Szeberin, Willemien van de Water

ESVS Guidelines Committee, George A. Antoniou, Martin Björck, Frederico Bastos Gonçalves, Raphael Coscas, Nuno V. Dias, Isabelle Van Herzele, Sandro Lepidi, Barend M.E. Mees, Timothy A. Resch, Jean-Baptiste Ricco, Santi Trimarchi, Christopher P. Twine, Riikka Tulamo, Anders Wanhainen

Document Reviewers, Jonathan R. Boyle, Marianne Brodmann, Alan Dardik, Florian Dick, Yann Gøfflic, Andrew Holden, Stavros K. Kakkos, Philippe Kolh, Mary M. McDermott

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Recommendation 58
For patients with disabling intermittent claudication undergoing revascularisation who are considered as low risk with long life expectancy, open surgery may be considered for Trans-Atlantic Inter-Society Consensus Document II C/D lesions that include the iliac arteries as well as the aorta up to the renal arteries, due to favourable primary and secondary patency rates compared with endovascular approaches.
Class Level References ToE
Iib B Salem et al. (2021)536
Premaratne et al. (2020)537
Indes et al. (2013)538
Starodubtsev et al. (2022)539

# Permeabilidad



Per 5 a

•By pass aorto-femoral	86%
•By pass ilio-femoral	85%
•Endarterectomia aortoiliaca	88%
•CERAB	77/88/95% 85/94/97%

## Long-Term Outcomes of the Covered Endovascular Reconstruction of the Aortic Bifurcation (CERAB) Technique in Patients With Aorto-Iliac Occlusive Disease

Kaj B Rouwenhorst<sup>1</sup>, Omar M A Abdelbaqy<sup>1,2</sup>, Daphne van der Veen<sup>1</sup>, Rianne E van Rijswijk<sup>1,3</sup>, Suzanne Holewijn<sup>1</sup>, Michel M P J Reijnen<sup>1,3</sup>

Affiliations + expand

PMID: 37114939 DOI: 10.1177/15266028231166539

### Abstract

**Background:** The Covered Endovascular Reconstruction of the Aortic Bifurcation (CERAB) reconstruction is an endovascular technique, developed to reconstruct the aortic bifurcation in the most optimal anatomical and physiological manner. Short-term data were promising, but long-term data are still lacking. The objective was to report the long-term outcomes of CERAB for extensive aorto-iliac occlusive disease and to identify predictors for loss of primary patency.

**Methods:** Consecutive electively treated patients with CERAB for aorto-iliac occlusive disease in a single hospital were identified and analyzed. Baseline and procedural data and follow-up were collected at 6-weeks, 6 months, 12 months, and annually thereafter. Technical success, procedural, and 30-day complications were evaluated, as well as overall survival. Patency and freedom from target lesion revascularization rates were analyzed using Kaplan Meier curves. Uni- and multivariate analysis were performed to identify possible predictors of failure.

**Results:** One hundred and sixty patients were included (79 male). Indication for treatment was intermittent claudication for 121 patients (75.6%) and 133 patients (83.1%) had a TASC-II D lesion. Technical success was obtained in 95.6% of patients and the 30-day mortality rate was 1.3%. The 5-year primary, primary-assisted, and secondary patency rates were 77.5%, 68.1%, and 95.0%, respectively, with a freedom-from clinically driven target lesion revascularization (CD-TLR) rate of 84.4%. The strongest predictor of loss of primary patency of CERAB was a previous aorto-iliac intervention (odds ratio [OR]=5.36 (95% confidence interval [CI]: 1.30; 22.07), p=0.020). In patients not previously treated in the aorto-iliac tract, 5-year primary, primary assisted, and secondary patency rates were 85.1%, 94.4%, and 96.9%, respectively. At 5-year follow-up, an improved Rutherford was found in 97.9% of patients and the freedom from major amputation rate was 100%.

**Conclusion:** The CERAB technique is related to good long-term outcomes, particularly in primary cases. In patients that had prior treatment for aorto-iliac occlusive disease, there were more reinterventions and therefore surveillance should likely be more intense.

**Clinical impact:** The Covered Endovascular Reconstruction of the Aortic Bifurcation (CERAB) reconstruction was designed to improve outcomes of endovascular treatment of extensive aorto-iliac occlusive disease. At 5-year follow-up clinical improvement was found in 97.9% of patients without major amputations. The 5-year overall primary, primary-assisted, and secondary patency rates were 77.5%, 68.1%, and 95.0%, respectively, with a freedom-from clinically driven target lesion revascularization rate of 84.4%. Significantly better patency rates were observed for patients that were never treated before in the target area. The data implicate that CERAB are a valid treatment option for patients with extensive aorto-iliac occlusive disease. For patients previously treated in the target area, other treatment options might be considered, or more intensive follow-up surveillance is warranted.



160 p

83% TASC D

Éxito técnico 95.6%

Mortalidad a 30 días 1.3%

5y FU: 77/88/95%

Primer tto 85/94/97%

98% libres de amputación

## Aorto-bifemoral bypass versus covered endovascular reconstruction of aortic bifurcation

Dana B Semaan<sup>1</sup>, Salim G Habib<sup>1</sup>, Othman M Abdul-Malak<sup>2</sup>, Jeffrey J Siracuse<sup>3</sup>,  
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Affiliations + expand

PMID: 38565344 DOI: 10.1016/j.jvs.2024.03.437

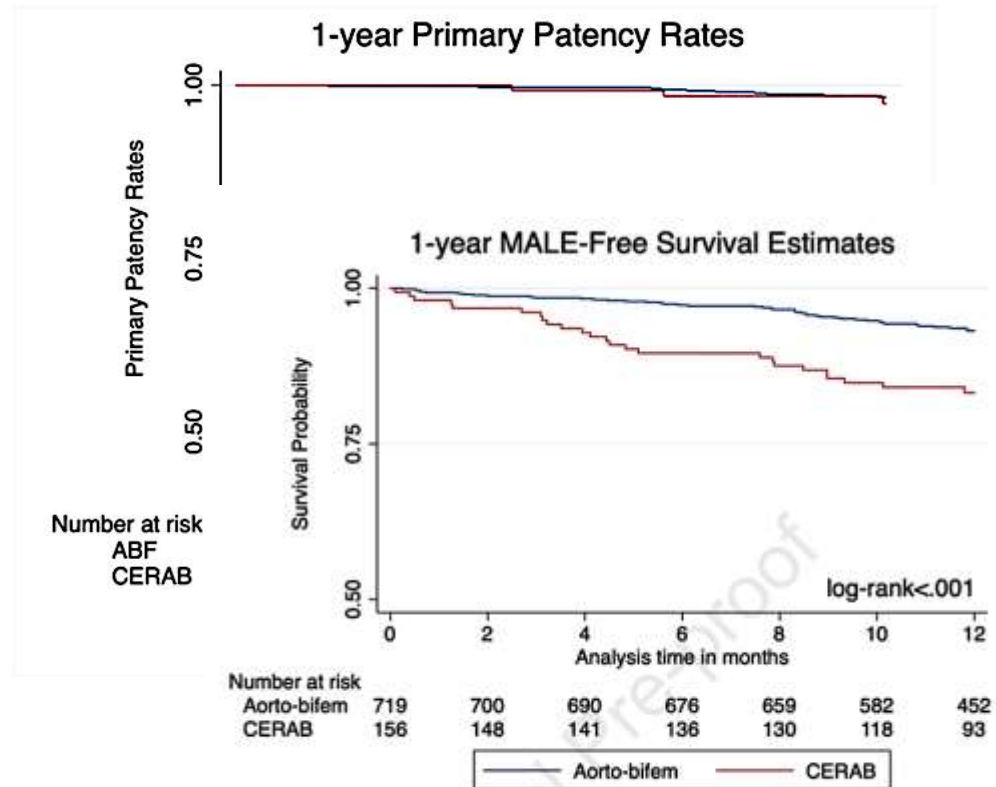
### Abstract

**Background:** Covered endovascular reconstruction of aortic bifurcation (CERAB) is increasingly utilized as a first line treatment in patients with aorto-iliac occlusive disease (AIOD). We sought to compare the outcomes of patients undergoing CERAB compared to the gold standard of aorto-bifemoral bypass (ABF).

**Methods:** The Vascular Quality Initiative was queried for patients undergoing ABF or CERAB from 2009-2021. Propensity scores were generated using demographics, comorbidities, Rutherford class, and urgency. The two groups were matched using 5-to-1 nearest neighbor match. Our primary outcomes were 1-year estimates of primary patency, major adverse limb events (MALE), MALE-free survival, reintervention-free survival, and amputation-free survival. Standard statistical methods were utilized.

**Results:** 3,944 ABF and 281 CERAB cases in total were identified. Of all patients with AIOD, the proportion of CERAB increased from 0% to 17.9% between 2009-2021. Compared to ABF, patients undergoing CERAB were more likely to be older (64.7 vs. 60.2;  $p < .001$ ) and more often had diabetes (40.9% vs. 24.1%;  $p < .001$ ) and end-stage renal disease (1.1% vs. 0.3%;  $P = .03$ ). In the matched analysis (229 CERAB vs. 929 ABF), ABF patients had improved MALE-free survival (93.2% [ $\pm 0.9\%$ ] vs. 83.2% [ $\pm 3\%$ ];  $p < .001$ ) and lower rates of MALE (5.2% [ $\pm 0.9\%$ ] vs. 14.1% [ $\pm 3\%$ ];  $p < .001$ ) and primary patency rates (96.3% [ $\pm 0.3\%$ ] vs. 96.6% [ $\pm 1\%$ ];  $p = .6$ ) and amputation [ $\pm 0.3\%$ ] vs. 99.4% [ $\pm 0.6\%$ ];  $p = .9$ ). Patients in the CERAB group had significant free survival (62.5% [ $\pm 6\%$ ] vs. 92.9% [ $\pm 0.9\%$ ];  $p < .001$ ). Matched analysis also showed significantly longer hospital stay (7 days;  $p < .001$ ), as well as lower pulmonary (1.2% vs. 6.6%;  $p = .01$ ), renal and cardiac (1.8% vs. 12.8%;  $p < .001$ ) complications among CERAB patients.

**Conclusion:** CERAB had lower perioperative morbidity compared to ABF with similar primary patency 1-year estimates. However, patients undergoing CERAB experience more major adverse limb events and reinterventions. Although CERAB is an effective treatment of patients with AIOD, further studies are needed to determine the long-term outcomes of CERAB compared to the established durability of ABF and further define the role of CERAB in treatment of AIOD.



**Conclusion:** CERAB had lower perioperative morbidity compared to ABF with a similar primary patency 1-year estimates. However, patients undergoing CERAB experienced more major adverse limb events and reinterventions. Although CERAB is an effective treatment of patients with AIOD, further studies are needed to determine the long-term outcomes of CERAB compared to the established durability of ABF and further define the role of CERAB in treatment of AIOD.



# Permeabilidad

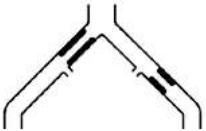
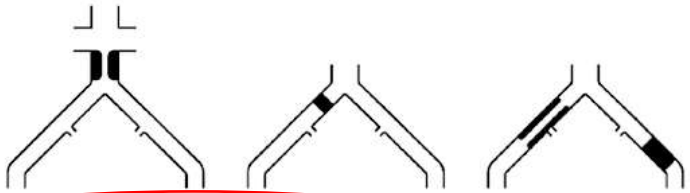
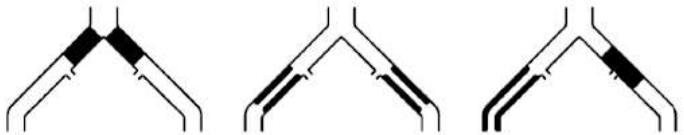
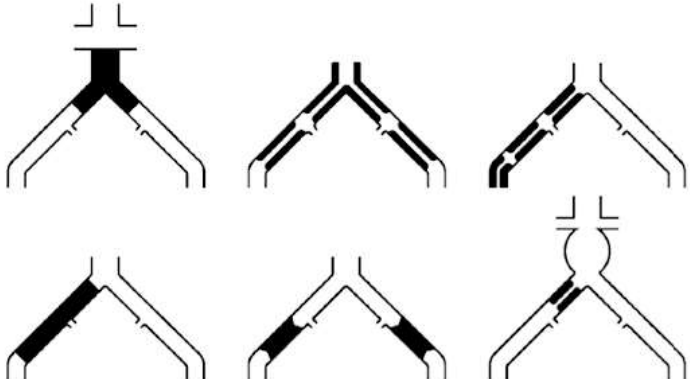


Per 5 a

- By pass aorto-femoral 86%
- By pass ilio-femoral 85%
- Endarterectomia aortoiliaca 88%
- CERAB 77/88/95%  
85/94/97%
- Iliac Registry 92/98% (36 m)





<p><b>TASC A lesions</b></p> <ul style="list-style-type: none"><li>• Unilateral or bilateral CIA stenoses</li><li>• Unilateral or bilateral single short (<math>\leq 3</math> cm) EIA stenosis</li></ul>	
<p><b>TASC B lesions</b></p> <ul style="list-style-type: none"><li>• Short (<math>\leq 3</math> cm) stenosis of the infrarenal aorta</li><li>• Unilateral CIA occlusion</li><li>• Single or multiple stenosis totaling 3 to 10 cm involving the EIA not extending into the CFA</li><li>• Unilateral EIA occlusion not involving the origins of the internal iliac or CFA</li></ul>	
<p><b>TASC C lesions</b></p> <ul style="list-style-type: none"><li>• Bilateral CIA occlusions</li><li>• Bilateral EIA stenoses 3 to 10 cm long not extending into the CFA</li><li>• Unilateral EIA stenosis extending into the CFA</li><li>• Unilateral EIA occlusion involving the origins of the internal iliac and/or CFA</li><li>• Heavily calcified unilateral EIA occlusion with or without involvement of the origins of the internal iliac and/or CFA</li></ul>	
<p><b>TASC D lesions</b></p> <ul style="list-style-type: none"><li>• Infrarenal aortoiliac occlusion</li><li>• Diffuse disease involving the aorta and both iliac arteries</li><li>• Diffuse multiple stenoses involving the unilateral CIA, EIA, and CFA</li><li>• Unilateral occlusions of both CIA and EIA</li><li>• Bilateral EIA occlusions</li><li>• Iliac stenoses in patients with AAA not amenable to endograft placement</li></ul>	

# Caso clínico

F 52 a  
Ingresa por síndrome de  
MMII.

Antecedentes:  
Tabaquista. Tres meses d

Examen físico:  
MMII con ausencia de pu



# AngioTC

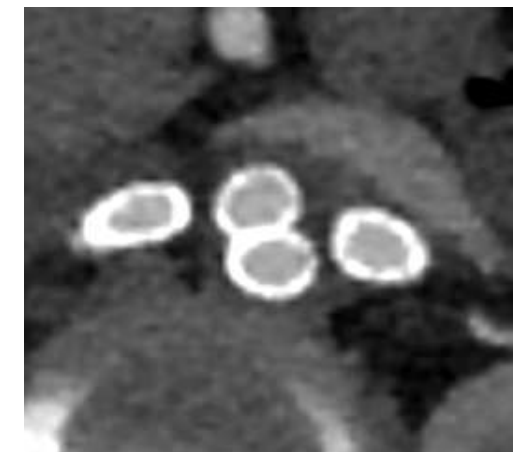
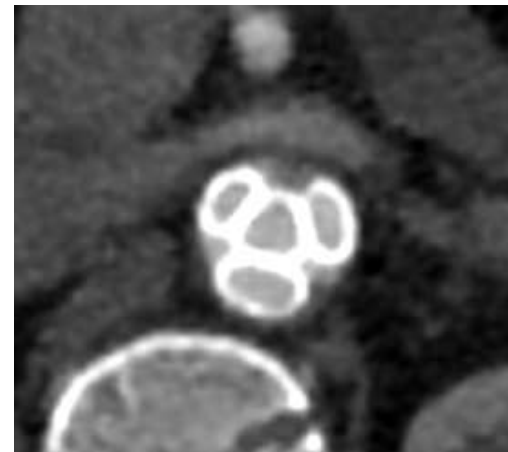
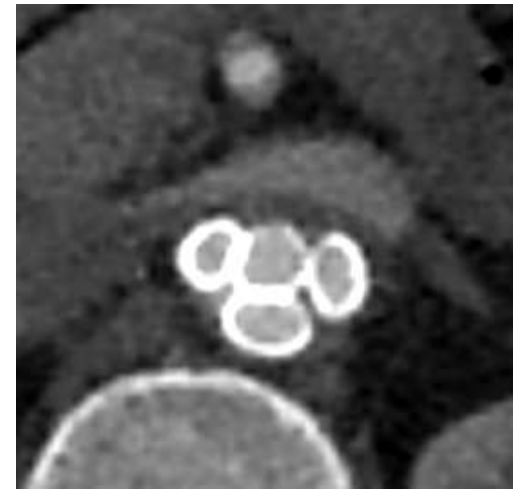
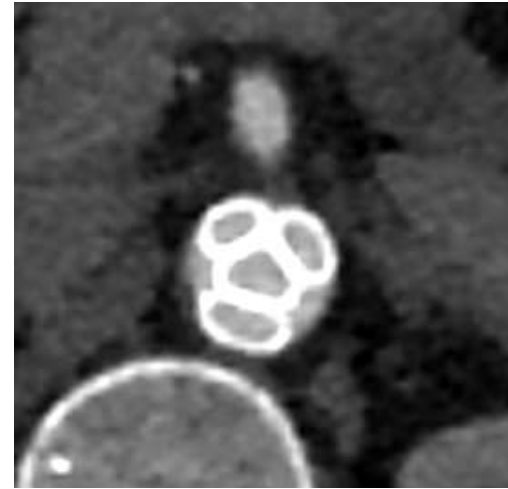
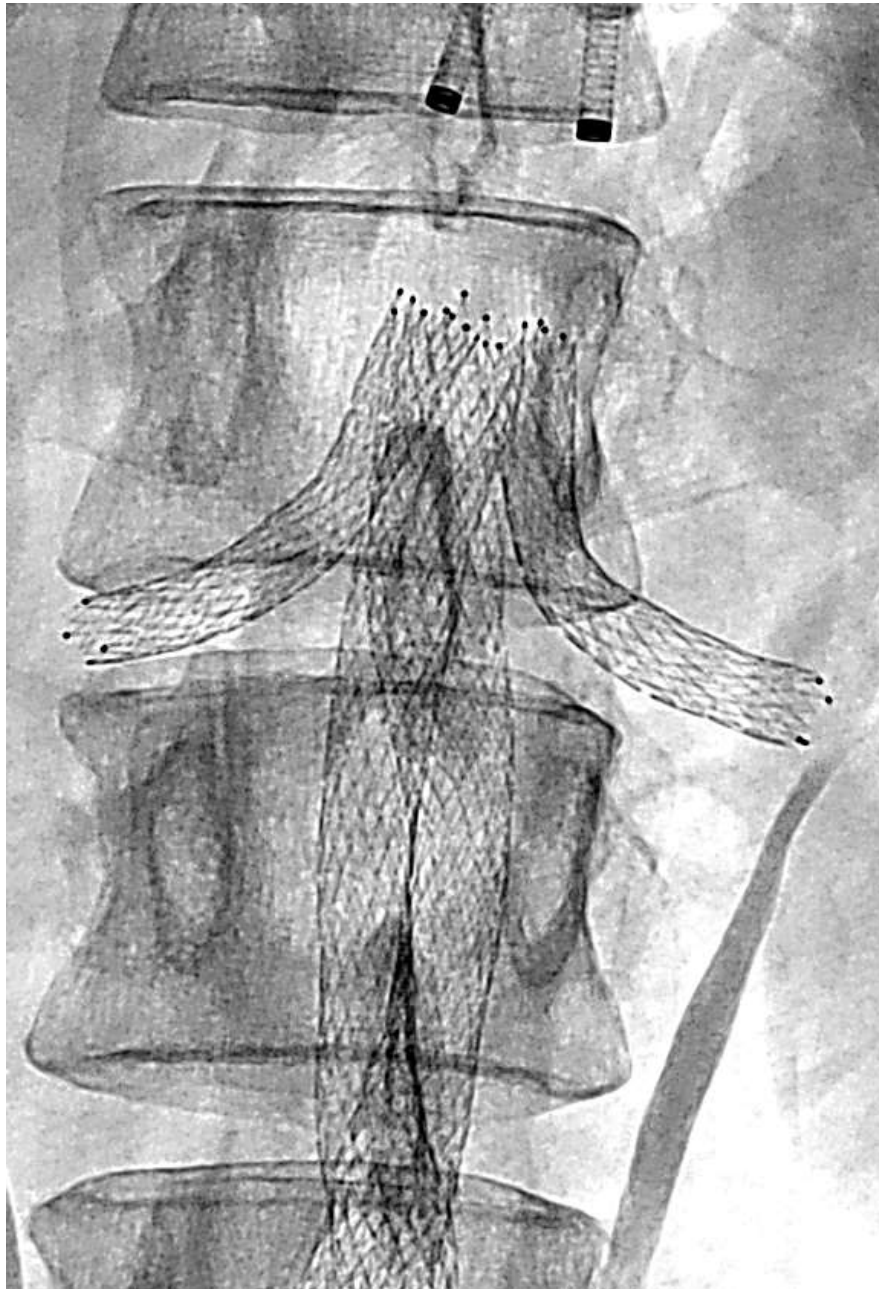




# AngioTC post tratamiento 24 hs



# Configuración de los stents



**Alta a las 24 hs.**

**Pulsos palpables, coloración, temperatura y relleno capilar normal.**

**Clopidogrel, Rivaroxaban y estatinas.**

# **Oclusión o estenosis de aorta infrarenal**

**¿Cuándo endovascular?**

**¿Cuándo no endovascular?**

**Cuándo no:**

**Poca experiencia**

**Restricciones de insumos**