



70TH ESCVS CONGRESS & 7TH IMAD MEETING

20 | 23 JUNE 2022

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70th ESCVS
International congress of the European Society
for Cardiovascular and Endovascular Surgery



7th IMAD meeting



Outcomes of endovascular reconstructive techniques in TASC II C-D aortoiliac lesions

Sergio Zacà, Roberto M Ramundo, Cristina Passabì, Fabio Vacca, Margot Ringold, Francesca Sodero, Alessandro Chiarelli, Domenico Angiletta

Vascular and Endovascular Surgery – Department of Emergency and Organs Transplantation (DETO)

“Aldo Moro” University of Bari School of Medicine, Bari – Italy



Speaker: Sergio Zacà, MD



Editor's Choice – 2017 ESC Guidelines on the Diagnosis and Treatment of Peripheral Arterial Diseases, in collaboration with the European Society for Vascular Surgery (ESVS)

Recommendations on revascularization of aorto-iliac occlusive lesions^c

Recommendations	Class ^a	Level ^b
An endovascular-first strategy is recommended for short (i.e. <5 cm) occlusive lesions. ²⁹¹	I	C
In patients fit for surgery, aorto-(bi)femoral bypass should be considered in aorto-iliac occlusions. ^{281, 292, 293}	IIa	B
An endovascular-first strategy should be considered in long and/or bilateral lesions in patients with severe comorbidities. ^{288, 294, 295}	IIa	B
An endovascular-first strategy may be considered for aorto-iliac occlusive lesions if done by an experienced team and if it does not compromise subsequent surgical options. ^{76, 281–283, 286}	IIb	B
Primary stent implantation rather than provisional stenting should be considered. ^{294–296}	IIa	B
Open surgery should be considered in fit patients with an aortic occlusion extending up to the renal arteries.	IIa	C
In the case of ilio-femoral occlusive lesions, a hybrid procedure combining iliac stenting and femoral endarterectomy or bypass should be considered. ^{297–300}	IIa	C
Extra-anatomical bypass may be indicated for patients with no other alternatives for revascularization. ³⁰¹	IIb	C

Endovascular strategies in Aortoiliac Obstructive Disease (AIOD)

- Long & bilateral lesions in unfit pts
- Experienced teams
- Not compromise subsequent options
- Combined with CFA endarterectomy or bypass grafting

Issues in EVT/Hybrid of AIOD

- Long chronic total occlusions (CTOs)
- Aortic/Iliac bifurcation involvement
- CFAs steno/obstructive lesions
- Infrarenal occlusions extending up to the renal arteries
- Heavy calcified lesions
- Subclavian arteries occlusions



COMPLEX TECHNIQUES



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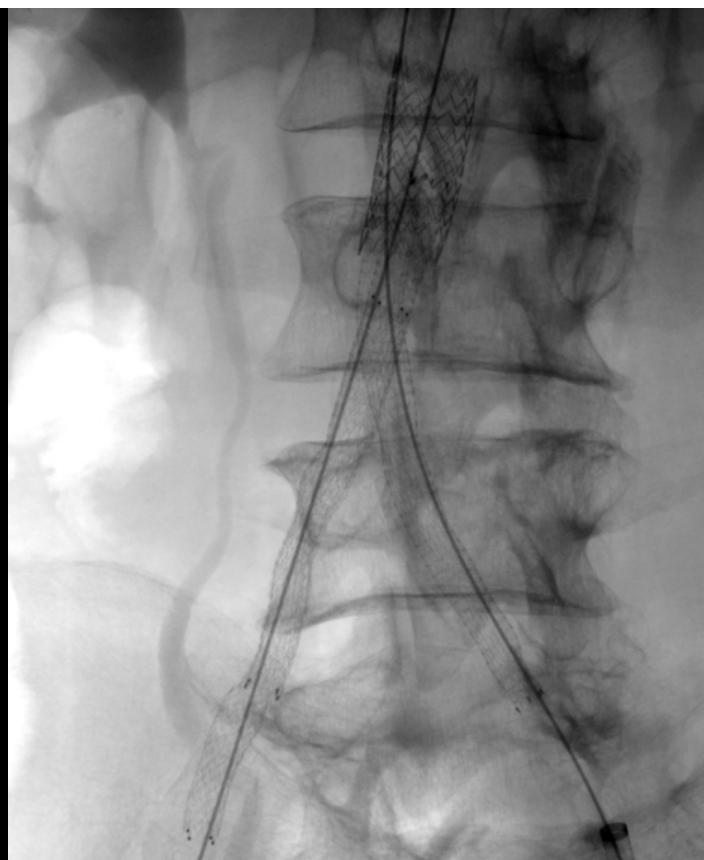
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Complex EV/Hybrid techniques in aorto-iliac obstructive disease

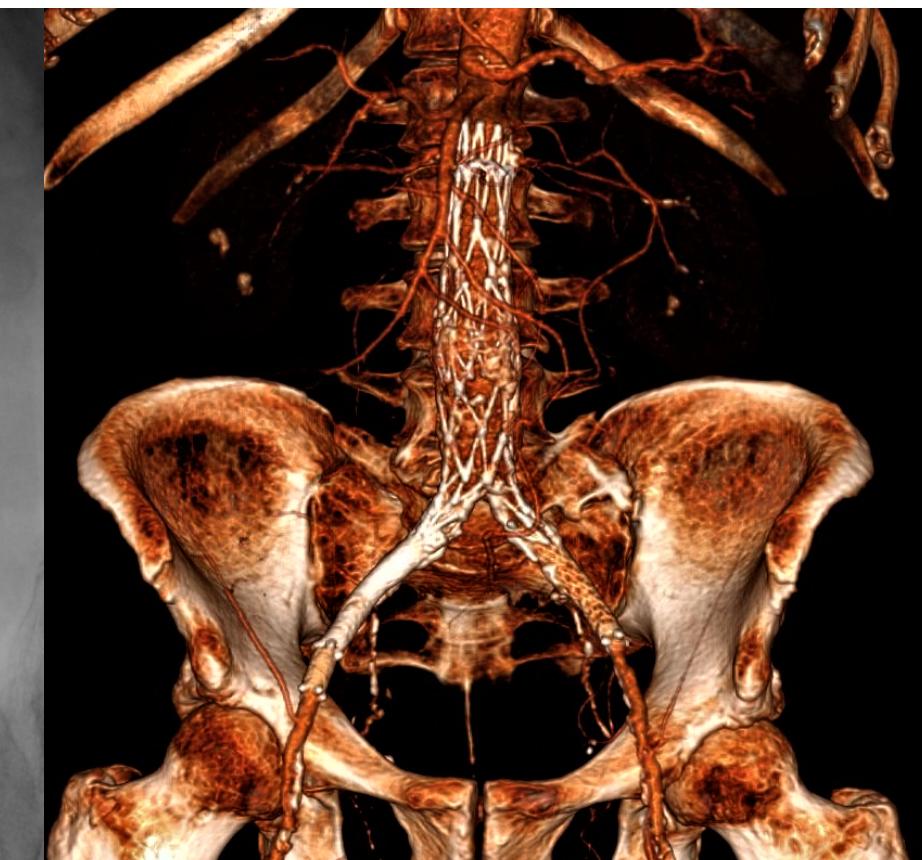
Kissing covered stent



CERAB



Bifurcated SGs – Endologix AFX Unibody



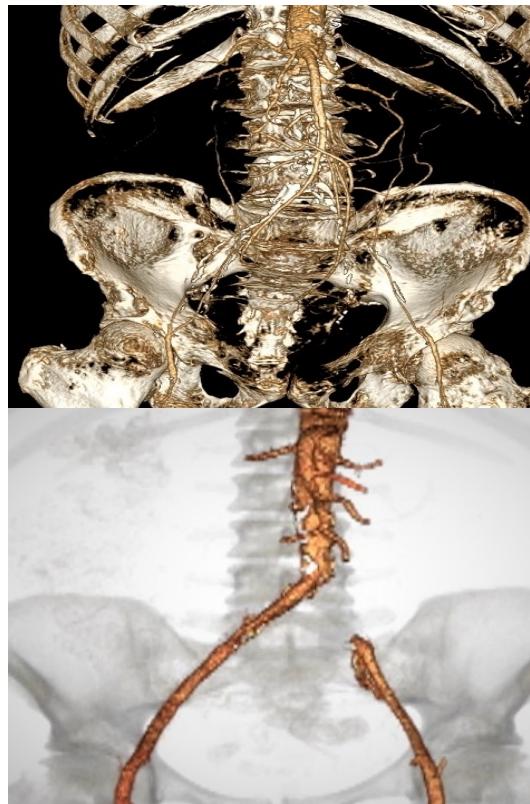
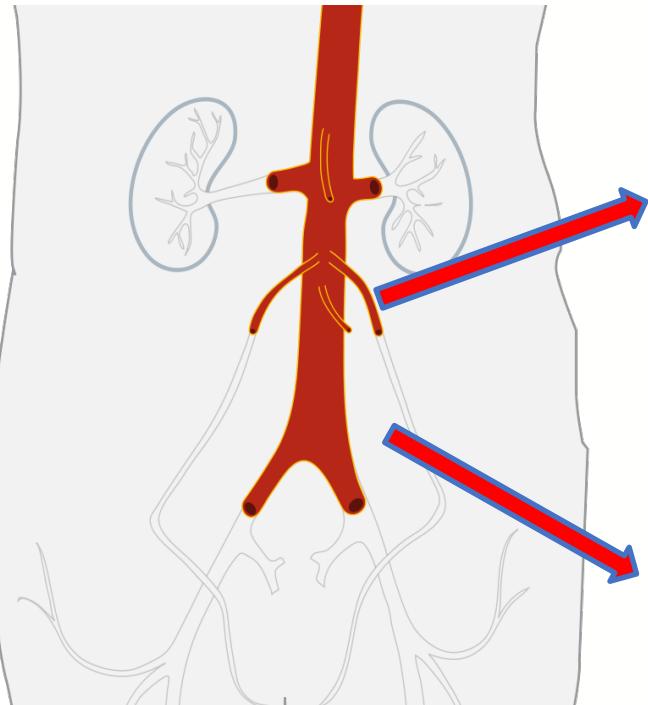


University of Bari experience in complex AIOD 2016-2022

Atherosclerotic complex TASC II C-D AIOD 190 pts

- Open surgery 7/190 – 3,7%
- **EV/Hybrid 183/190 – 96,3%**

Aortic involvement
96 pts (15F, 15,6%)



Infrarenal lesions, No. 46/47,8%
All TASC II D stage

Ao Bifurcation lesions, No. 50/52,2%
TASC II C stage 9/50 – 18%
TASC II D stage 41/50 – 82%

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University of Bari experience in complex AIOD 2016-2022

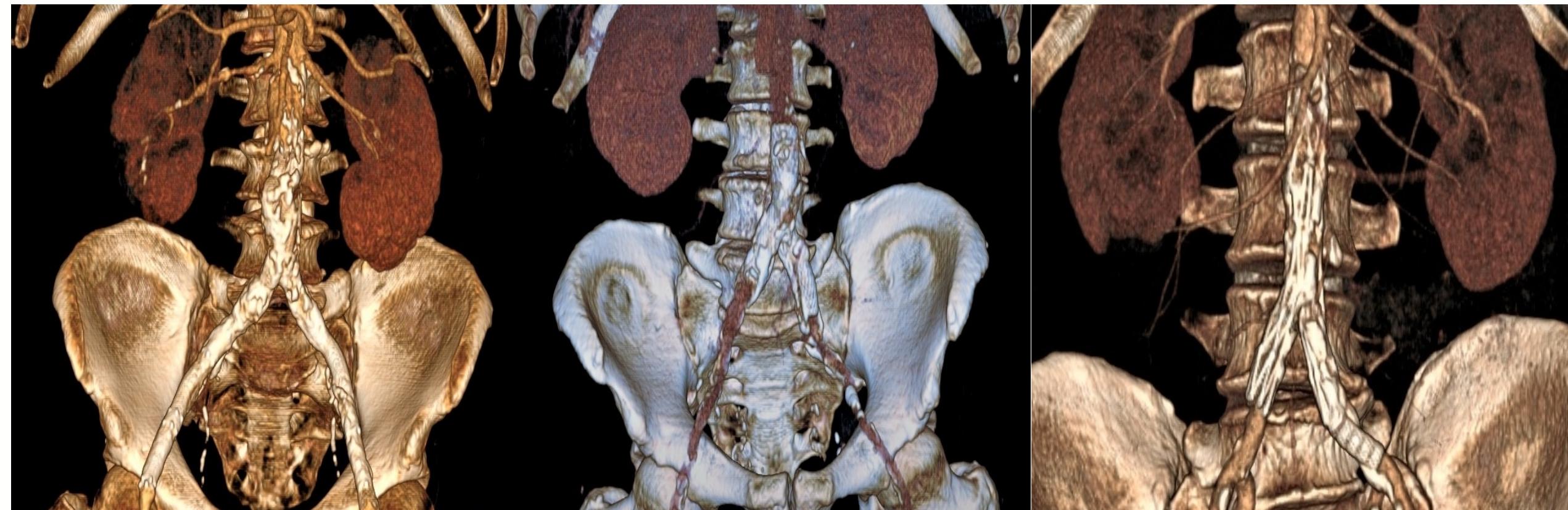
Atherosclerotic complex TASC II C-D AIOD 183 pts

Aortic involvement 96 pts

Kissing covered stent
No. 44/45,8%

CERAB
No. 28/29,2%

Bifurcated SGs – Endologix AFX Unibody
No. 24/25%





University of Bari experience in complex AIOD 2016-2022

Atherosclerotic complex TASC II C-D (cKS, CERAB, AFX) 96 pts

Immediate results

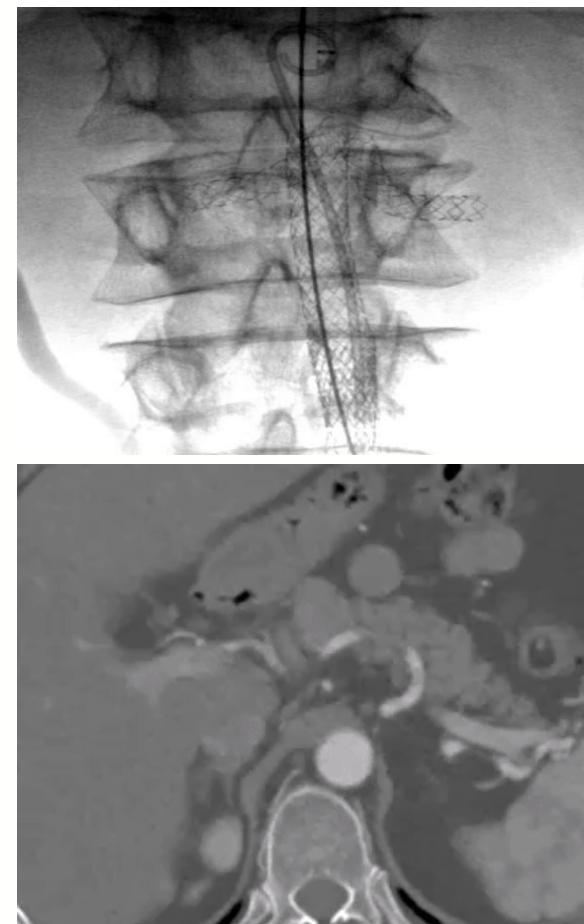
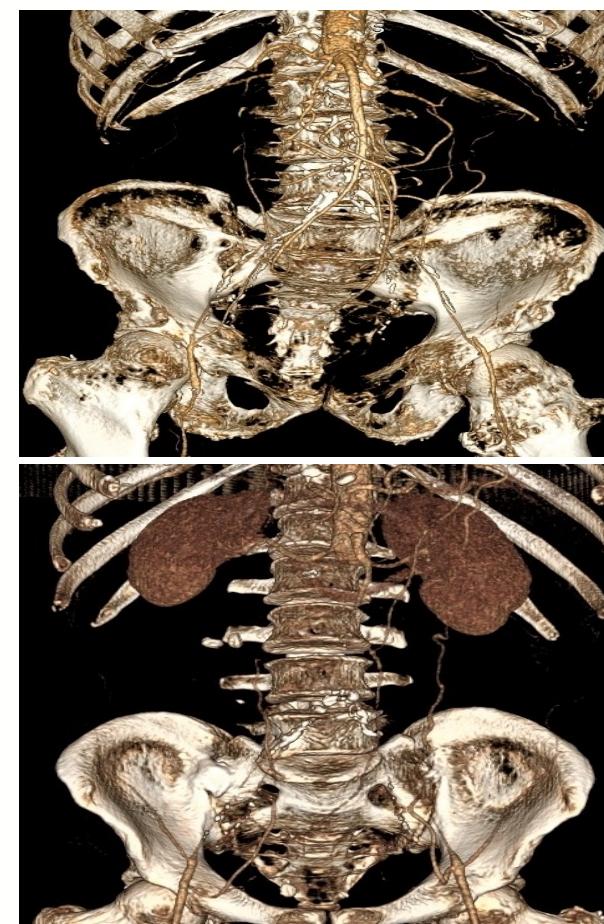
- Technical success (ITT analysis)
- Hemodynamical success (ABI improvement)

Early results (post-operative) 30-day

- Survival (all-cause mortality)
- Thrombosis
- Major amputation

Late 3 yrs results

- Survival (all-cause mortality)
- Patency (Primary & Secondary)
- Limb salvage rate (Major amputation)
- Freedom from Reintervention (OSR, EV/Hybrid)



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University of Bari experience in complex AIOD 2016-2022

Demographics & operative data

	cKS (No./%)	CERAB (No./%)	AFX Unibody (No./%)	P-value
Age (Mean±SD)	65.7±10.5	67.5±8.6	66.5±9.1	.756
Pre-operative ABI (Mean±SD)	0.38±0.20	0.37±0.14	0.39±0.16	.932
Risk factors				
Smoke (active&former)	41 (93,2)	28 (100)	24 (100)	.256
Hypertension	36 (81,8)	23 (82,1)	20 (83,3)	.988
COPD	22 (50)	10 (35,7)	7 (29,2)	.203
CAD	12 (27,3)	10 (35,7)	10 (41,7)	.461
Dyslipidemia	33 (75)	24 (85,7)	21 (87,5)	.348
Diabetes	14 (31,8)	13 (46,4)	11 (45,8)	.359
CKD (Clcr > 1,5 g/dL)	10 (22,7)	2 (7,1)	3 (12,5)	.108
Rutherford's categories				
3 – CI	25 (56,8)	20 (71,4)	14 (58,3)	
4>6 - CLI	19 (43,2)	8 (28,6)	10 (41,7)	.668
TASC II				
C	6 (13,6)	0 (0)	3 (12,5)	
D	38 (86,4)	28 (100)	21 (87,5)	.128
Lesion level				
Infrarenal	16 (36,4)	17 (60,7)	13 (54,2)	
Aortic Bifurcation	28 (63,6)	11 (39,3)	11 (45,8)	.006
CTO lenght (CT scan measurement)				
< 5 cm	3 (15,8)	2 (9,5)	1 (5,9)	
> 5 cm	6 (31,6)	10 (47,6)	5 (29,4)	
> 10 cm	10 (52,6)	9 (42,9)	11 (64,7)	.595

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University of Bari experience in complex AIOD 2016-2022

In-hospital data, immediate results

	cKS (No./%)	CERAB (No./%)	AFX Unibody (No./%)	P-value
Type of recanalization				
Antegrade	12 (27,3)	18 (64,3)	14 (58,3)	
Retrograde	32 (72,7)	10 (35,7)	10 (41,7)	.001
Intraluminal	20 (45,5)	5 (17,9)	8 (33,3)	
Subintimal	24 (54,5)	23 (82,1)	16 (66,7)	.055
Hybrid CFA endarterectomy – patch plasty	12 (27,3)	8 (28,6)	9 (37,5)	.663
Stent Type				
Covered SE	20 (45,5)	2 (7,1)	24 (100)	
Covered BX	24 (54,5)	26 (92,9)	0 (0)	.0001
Post-operative ABI	0,80±0,23	0,80±0,12	0,78±0,16	.971
Complications				
Surgical	4 (10)	4 (14,3)	3 (12,5)	
Not-surgical	2 (5)	3 (10,7)	1 (4,2)	.813
Post-operative Therapy				
DAPT	40 (90,9)	26 (92,9)	22 (91,7)	
SAPT+Warfarin/DOAC	4 (9,1)	2 (7,1)	2 (8,3)	.857

- No ruptures
- No intraoperative OSR conversion
- No intraoperative deaths

Immediate results

- Technical success (ITT analysis) No. 96/100%
 - Hemodynamical success
- ABI improvement $0,38 \pm 0,17 > 0,79 \pm 0,18 (p= .0001)$

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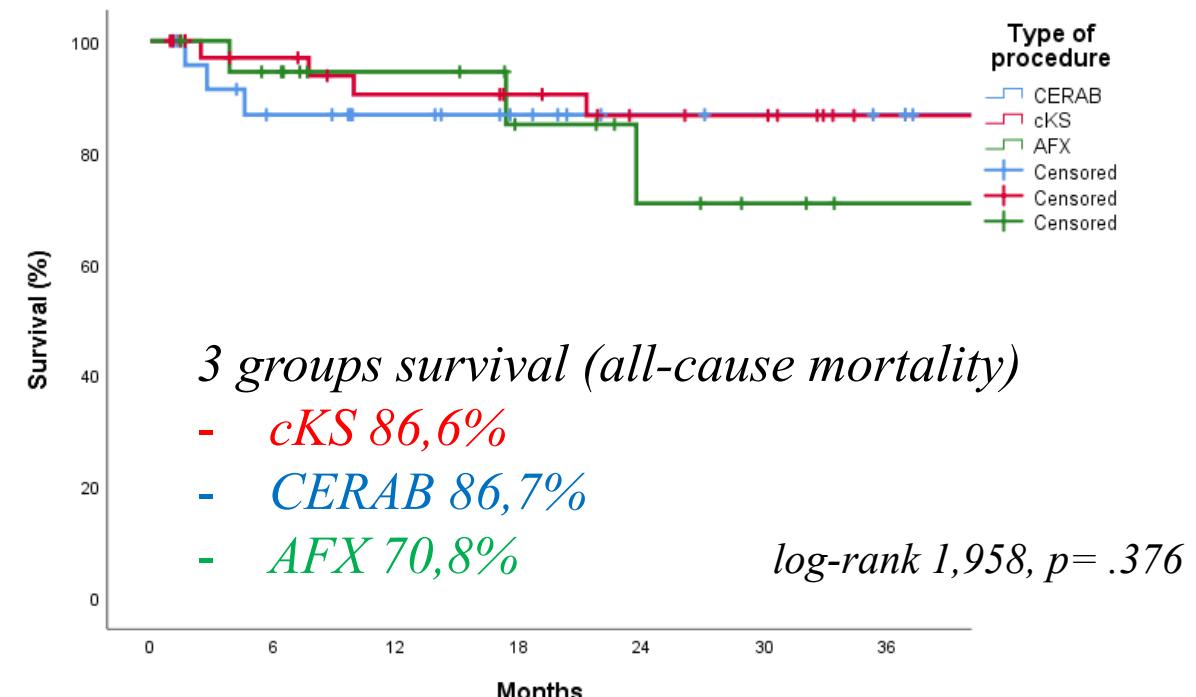
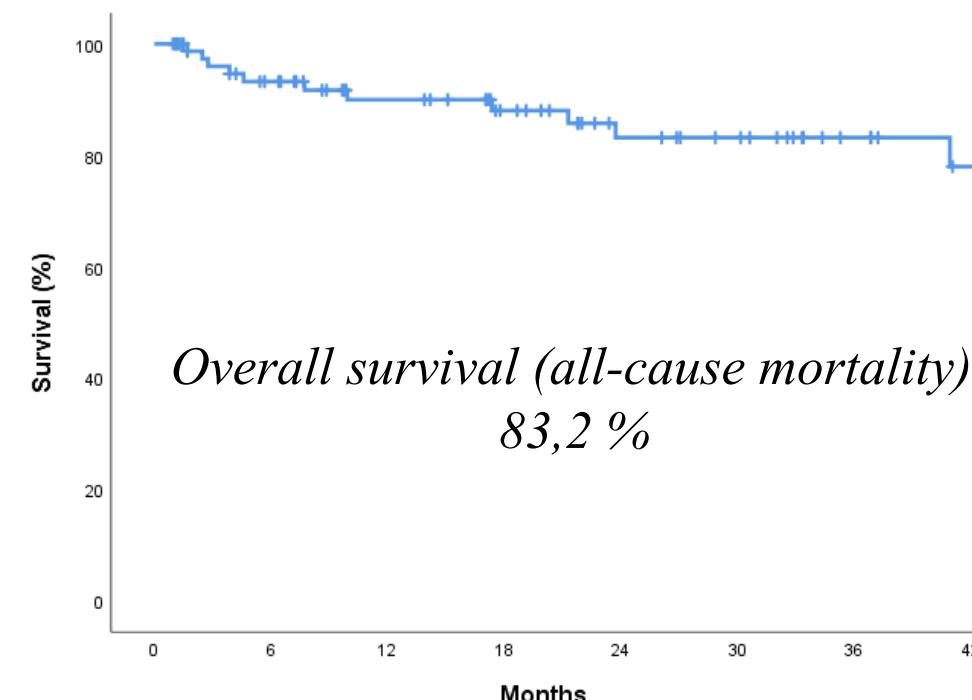


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University of Bari experience in complex AIOD 2016-2022 *Early results & 3 yrs survival (all-cause mortality)*

	cKS (No./%)	CERAB (No./%)	AFX Unibody (No./%)	P-value
30-d results				
Thrombosis	1 (2,3)	0 (0)	1 (4,2)	.582
Major Amputation	0 (0)	1 (3,7)	1 (4,2)	.412
Death	1 (2,3)	0 (0)	0 (0)	.557



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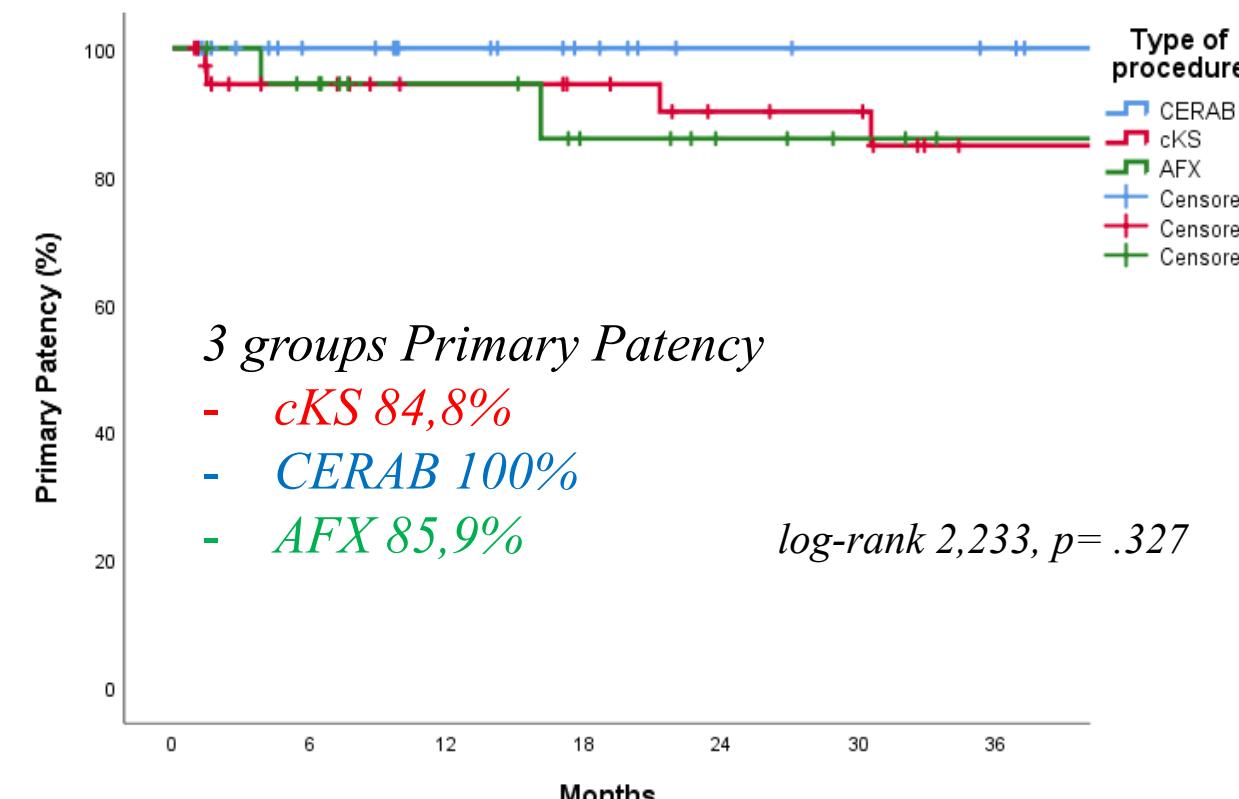
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University of Bari experience in complex AIOD 2016-2022
3 yrs patency (Primary & Secondary)

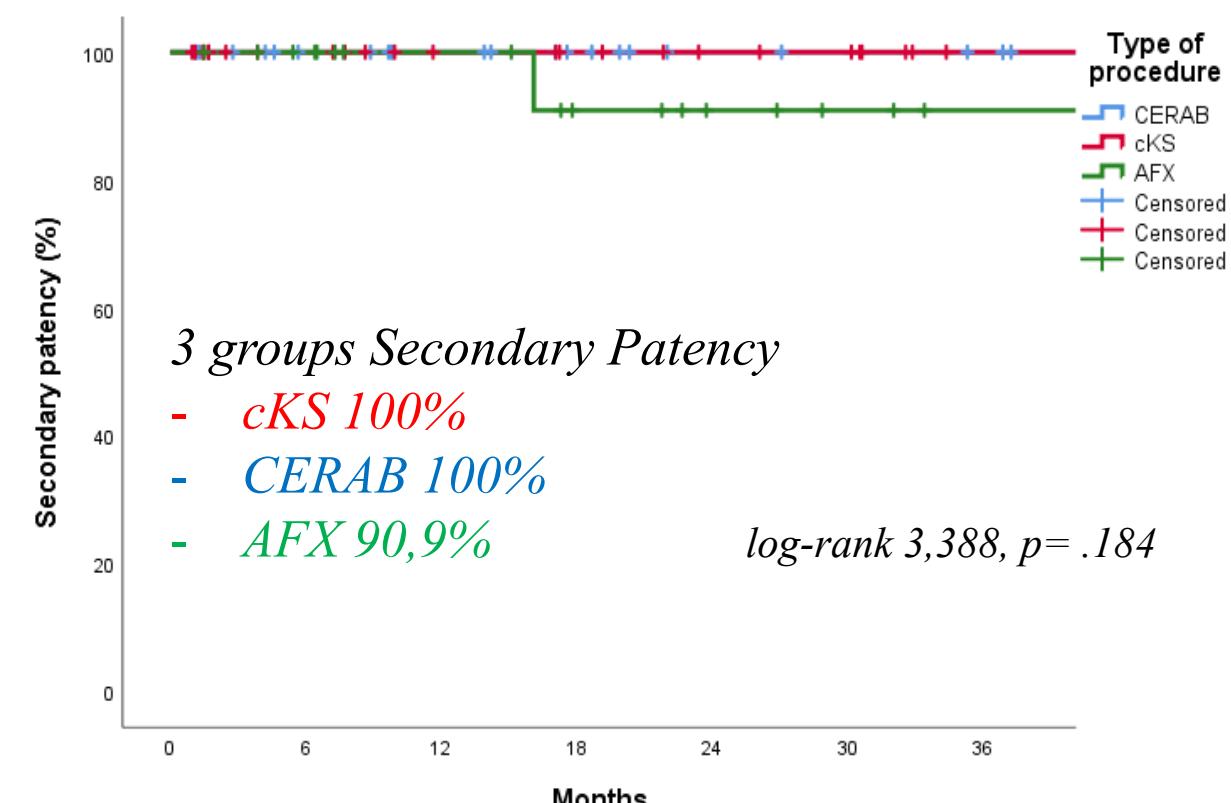
Overall primary patency

87,8%



Overall secondary patency

97,9%



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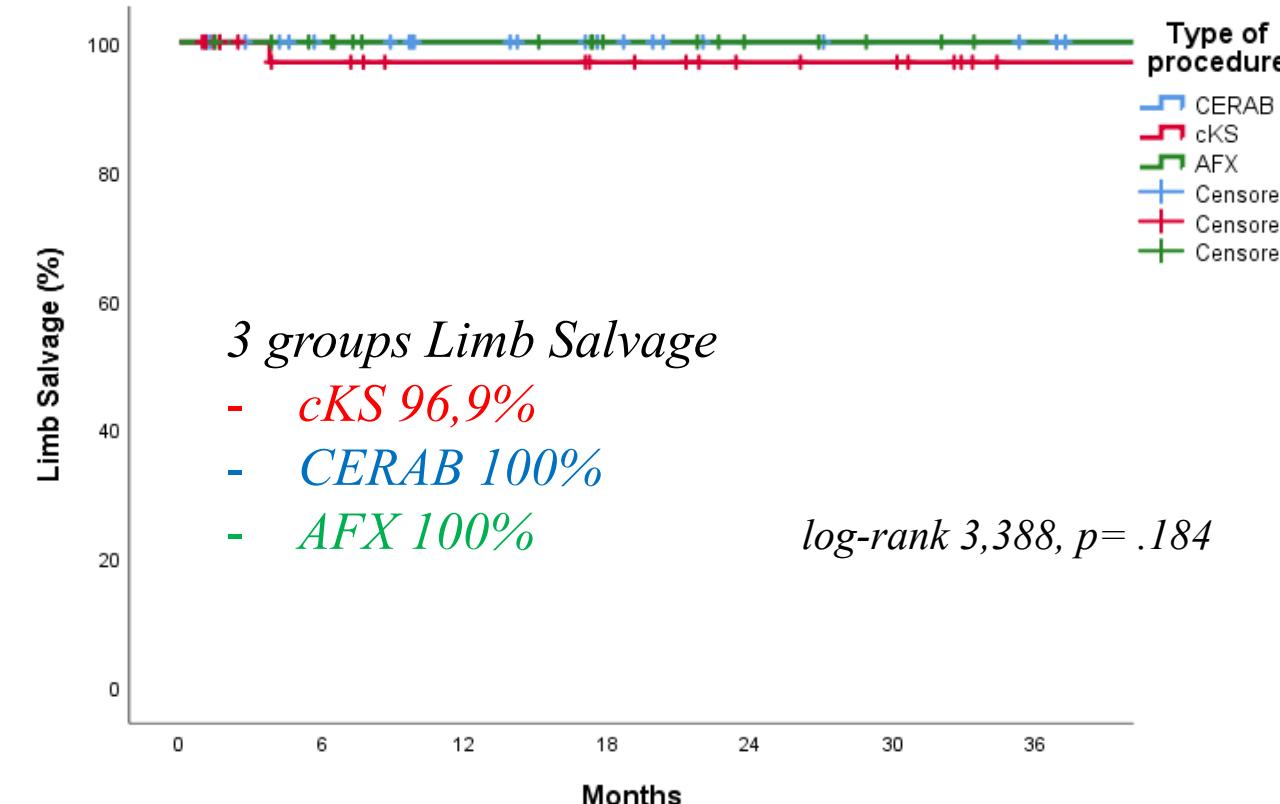
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University of Bari experience in complex AIOD 2016-2022
3 yrs Limb Salvage & freedom from OSR/EV/Hybrid reintervention

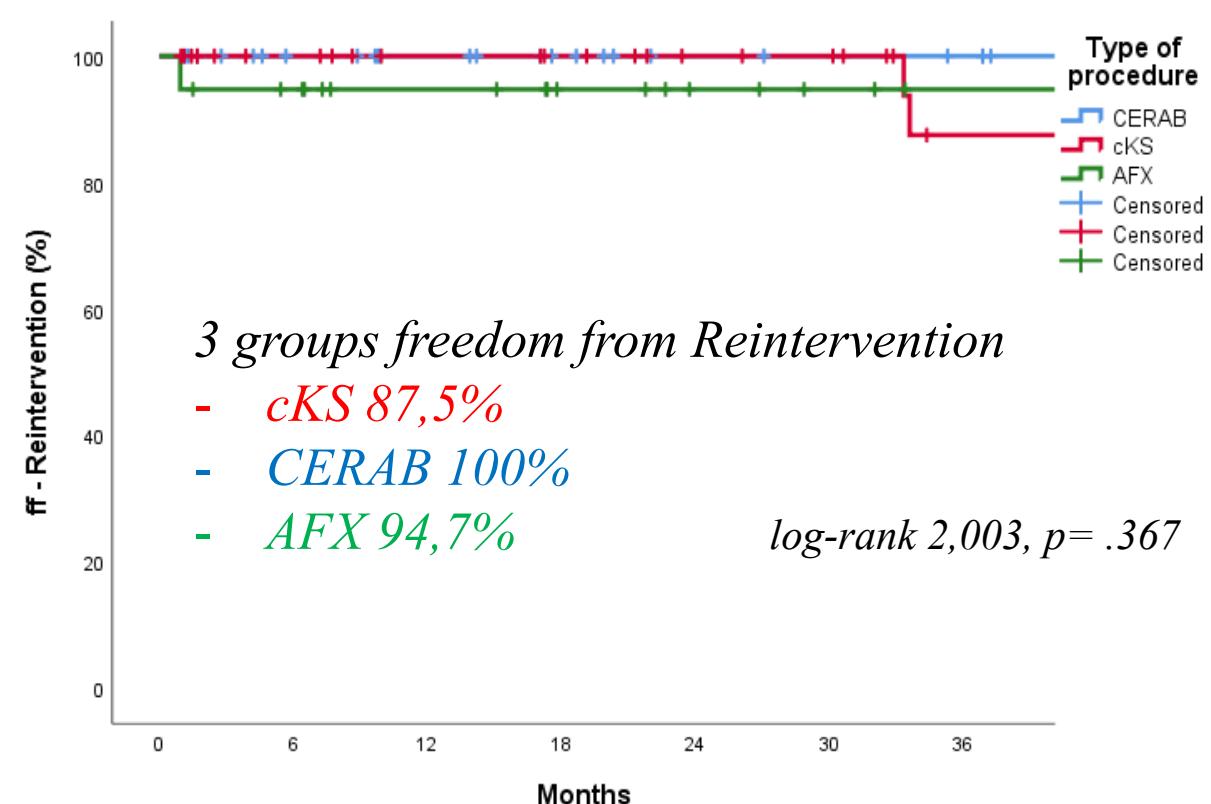
Overall Limb Salvage

98,6%



Overall freedom from reintervention

90%



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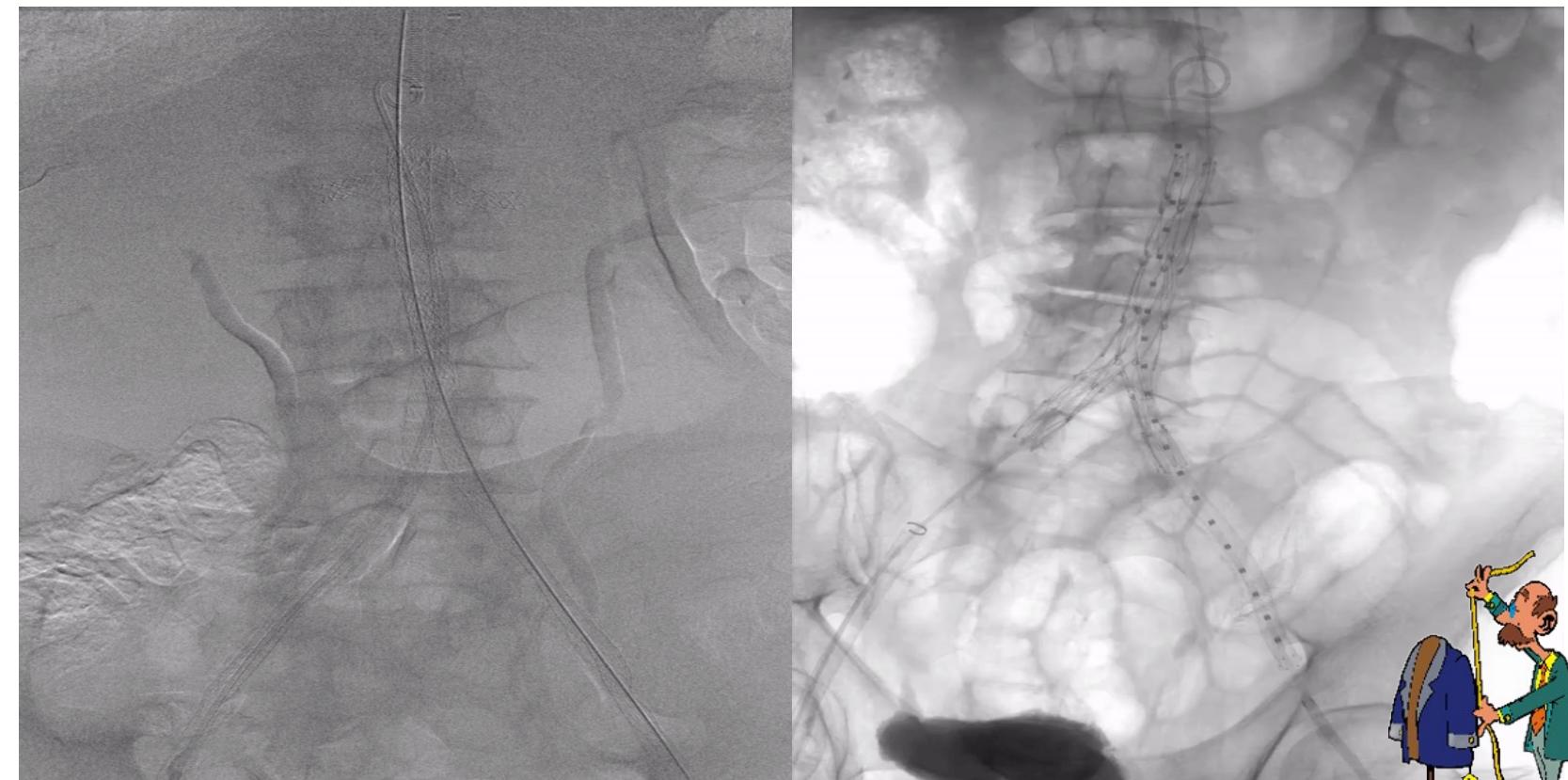


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University of Bari experience in complex AIOD 2016-2022

Endovascular reconstruction in severe aorto-iliac obstructions using advanced techniques offered promising mid-term patency rates and profiles of safety. The variety of reconstructive configurations allow surgeons to customize on patients' anatomies the type of revascularization.



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danke 謝謝
спасибо
 teşekkür ederim
dank je
merci
thank you
gracias
teşekkür ederim
go raibh maith agat
sukriya kop khun krap
terima kasih
감사합니다
merci