

The Candy-Plug technique using an Excluder aortic cuff -clinical utility and technical aspects-

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Disclosure

Speaker name: Yukihiisa Ogawa

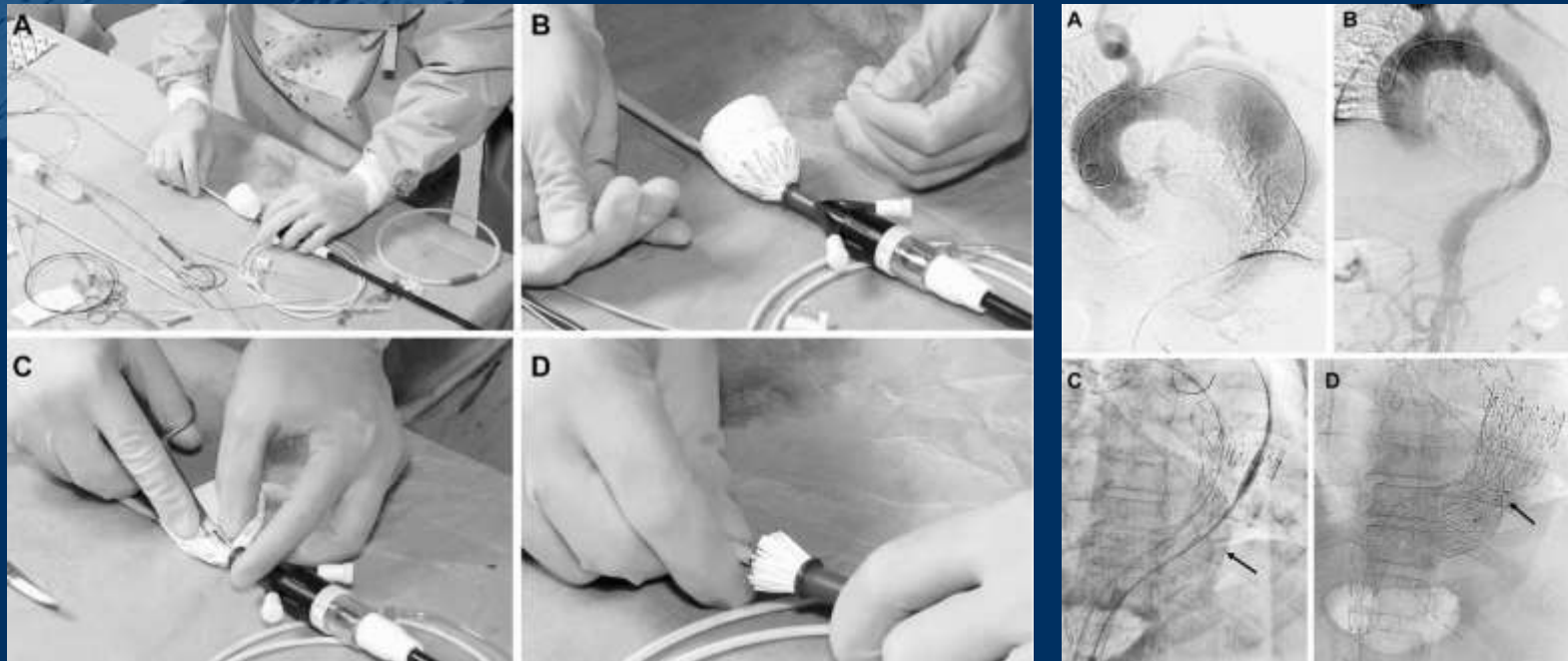
I have the following potential conflicts of interest to report:

- Consulting
 - Employment in industry
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 - Other(s)
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- I do not have any potential conflict of interest

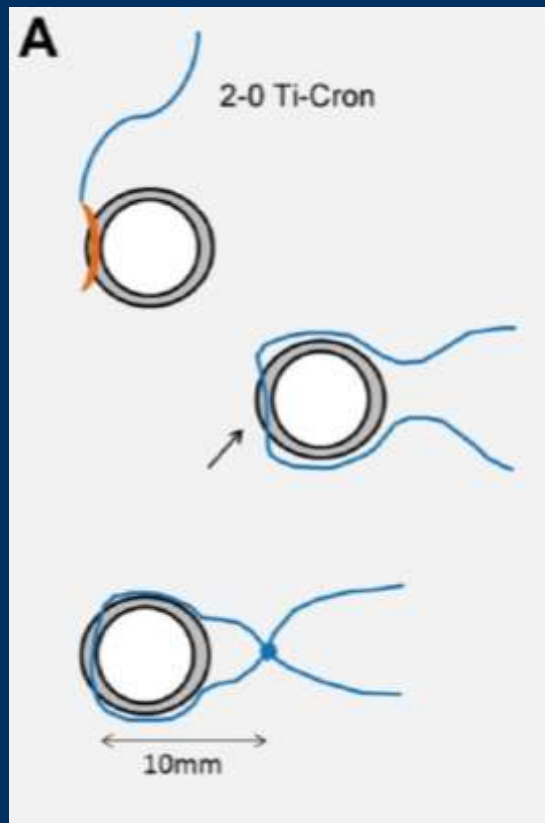
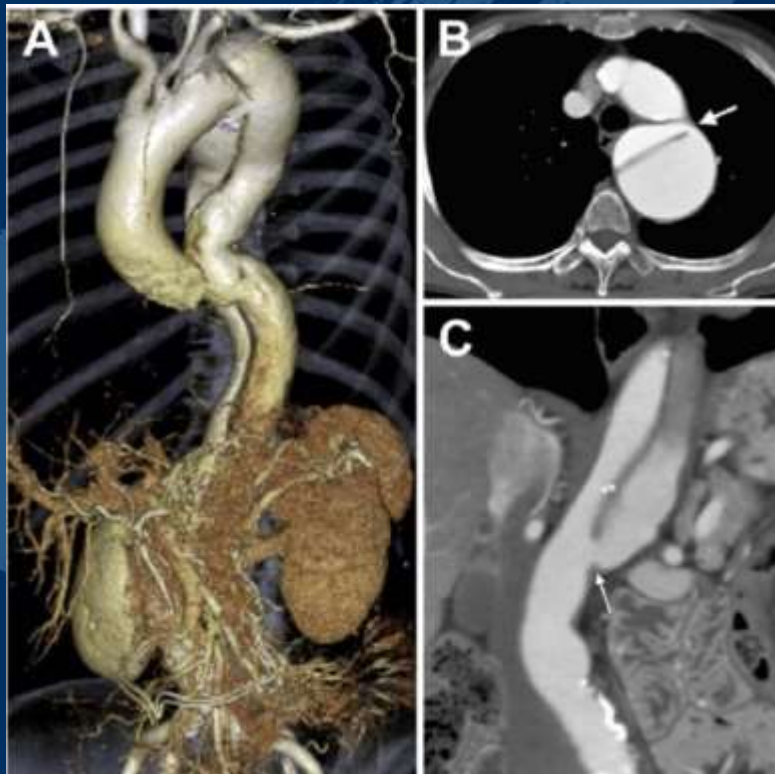
Distal False Lumen Occlusion in Aortic Dissection With a Homemade Extra-Large Vascular Plug: The Candy-Plug Technique

Tilo Kölbel, MD, PhD; Christina Lohrenz, MD; Arne Kieback, MD; Holger Diener, MD;
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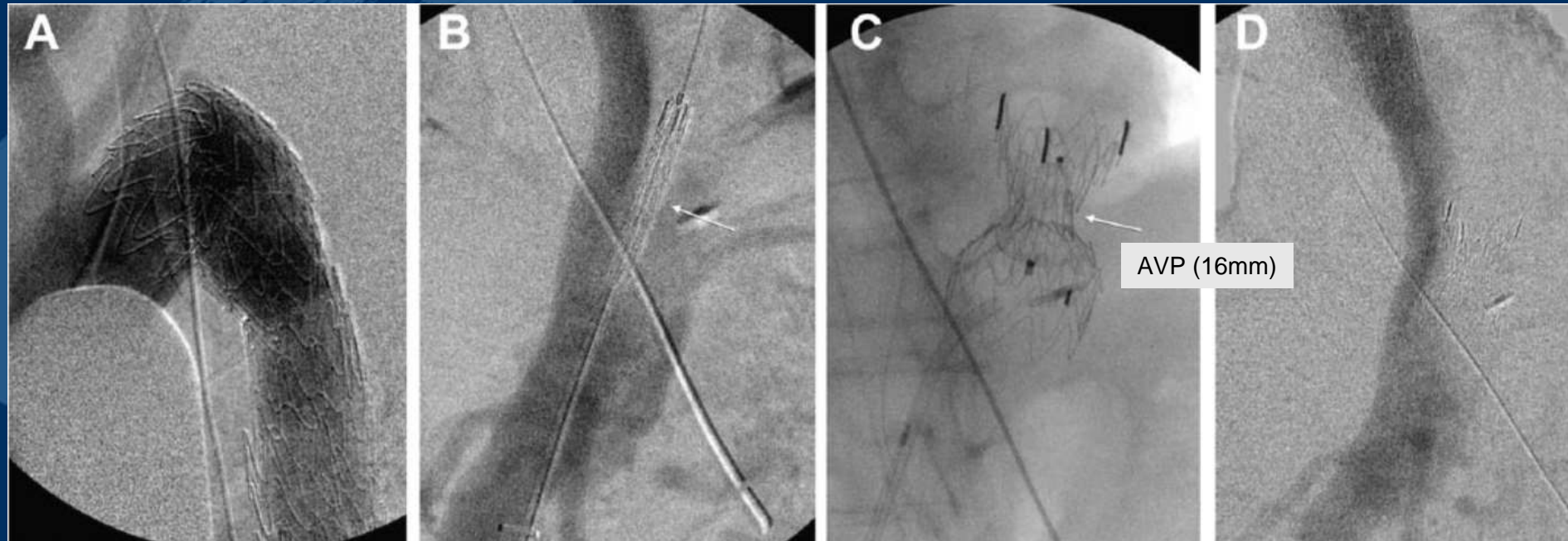
J Endovasc Ther 2013; 20: 484-9.



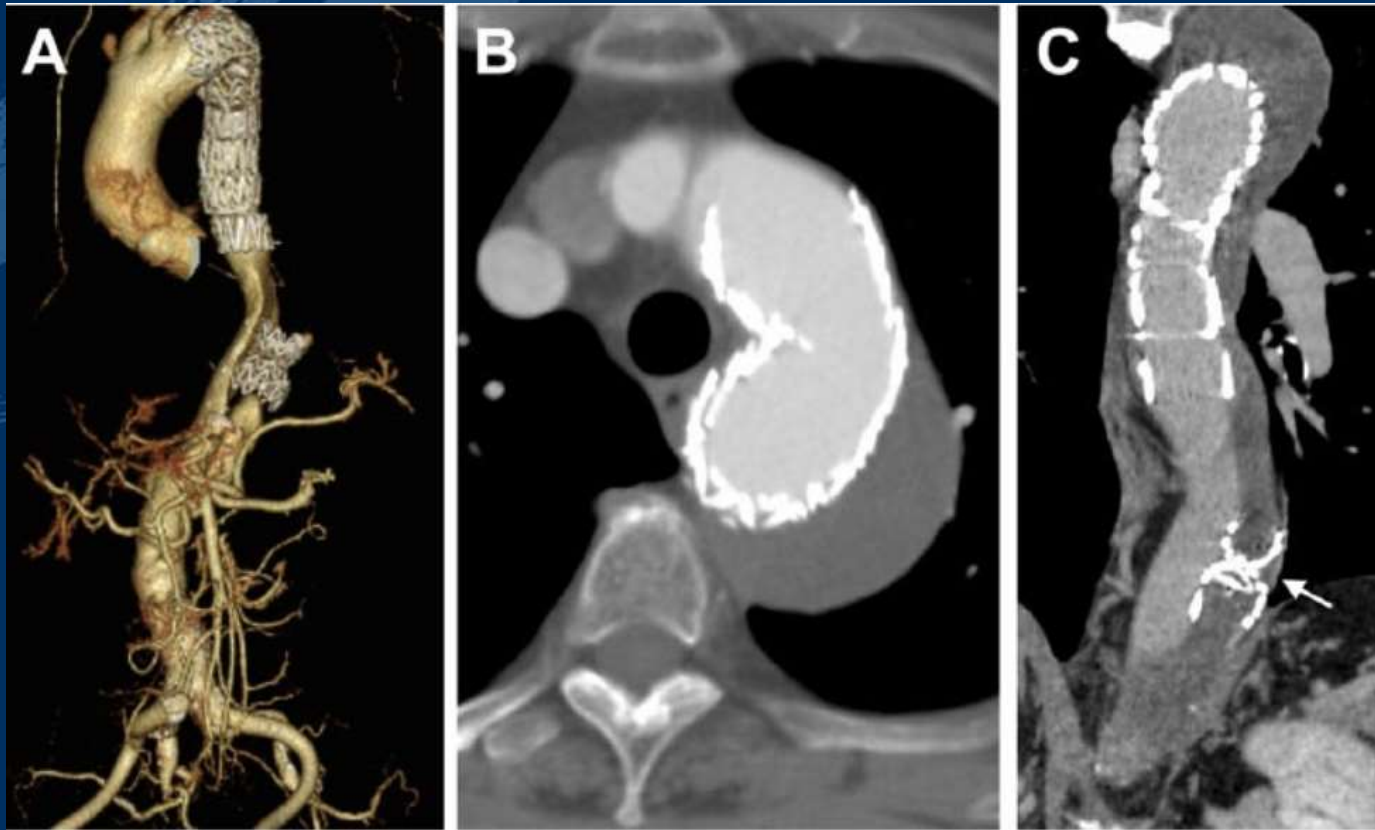
Candy-Plug technique (Excluder aortic cuff)



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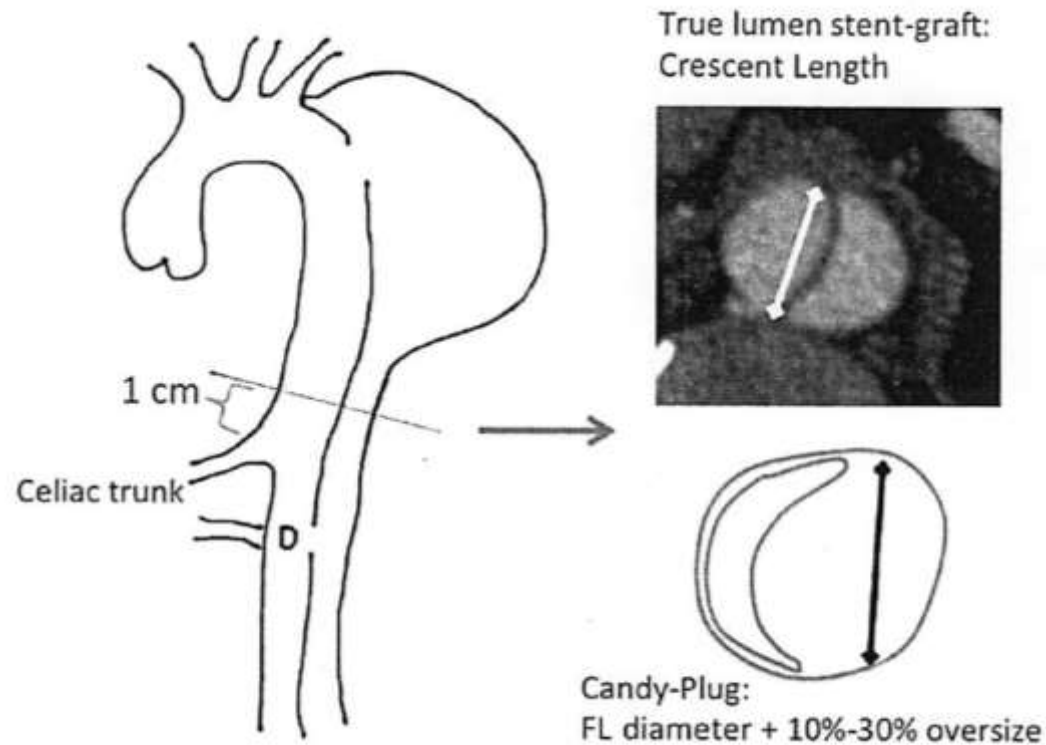
Follow up CT after 8 mos



How to decide appropriate size of Candy-Plug



TL stent-graft \cong Crescent length
Ex-cuff = $(a+b)/2 + 10-20\%$



TEVAR with the Candy-Plug technique



Our clinical experience (2014.7-2017.7)

Patient number	N=7
Mean age (years) (range)	63 (44 – 78)
Sex (M:F)	6 : 1
Etiology	Post type A (2) Chronic type B (5)
Indication of treatment	Aneurysmal dilatation (6) Rupture (1)
Median time after onset to TEVAR treatment (years)	3.8 (1 – 9)
Mean maximum size of the aorta (mm)	58.7 (44 – 71)

Results

Mean follow up periods: 593 days

✓ Technical success: 6/7 (86 %)

defined as accurately deployment of the Candy-Plug

✓ Clinical success: 4/7 (57 %)

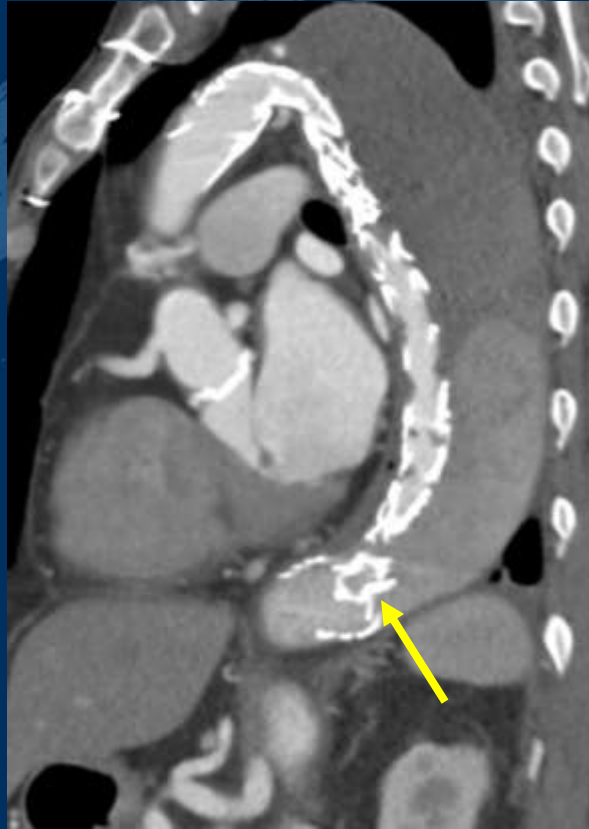
defined as no false lumen back flow on f/u CT

Clinical outcomes

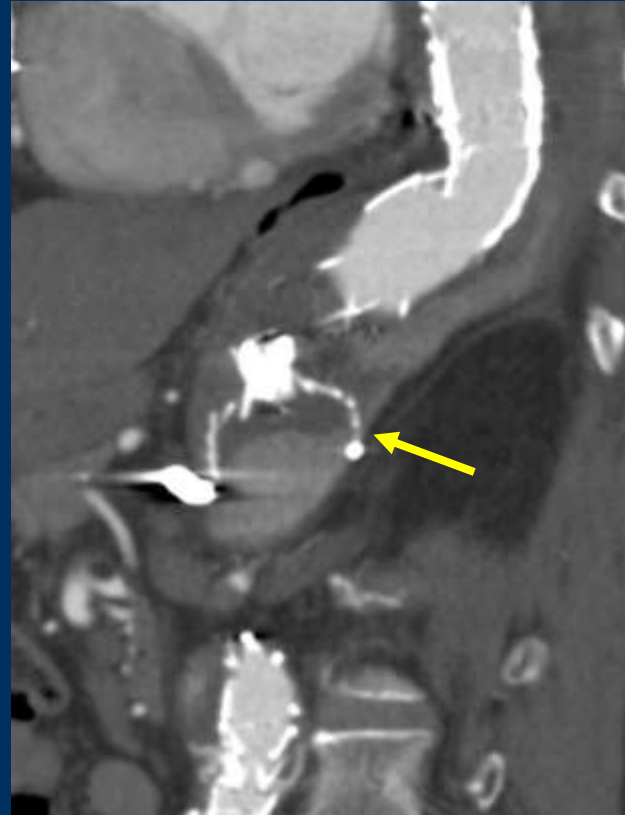
	Diagnosis	Maximum Diameter (mm)	Mean FL diameter (mm)	Ex-cuff (mm)	Follow up period (days)	FL flow	Size change	Re-intervention	outcome
1	cTBAD	58	27	32	1225	- (2M)	Shrink	TEVAR for type I a EL	Alive
2	cTBAD	49	45	36	922	- (4M)	No change	TEVAR for ULP	Alive
3	post type A post TEVAR	71	40	36	555	+	No change	TEVAR for type III EL	Alive
4	Post type A rupture	44	34	36	565	- (1w)	No change	None	Alive
5	cTBAD	57	30	36	222	- (7M)	No change	None	Alive
6	cTBAD	68	34	36	431	+	Shrink	None	Alive
7	cTBAD	64	32	36	231	+	No change	None	Alive

The cause of persistent FL back flow

Incomplete AVP embolization



Migration of the Candy-Plug



The Candy-Plug Technique: Technical Aspects and Early Results of a New Endovascular Method for False Lumen Occlusion in Chronic Aortic Dissection

Fiona Rohlfes, MD¹, Nikolaos Tsilimparis, MD¹, Beatrice Fiorucci, MD^{1,2}, Franziska Heidemann, MD¹, Eike Sebastian Debus, MD, PhD¹, and Tilo Kölbel, MD, PhD¹

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N = 18

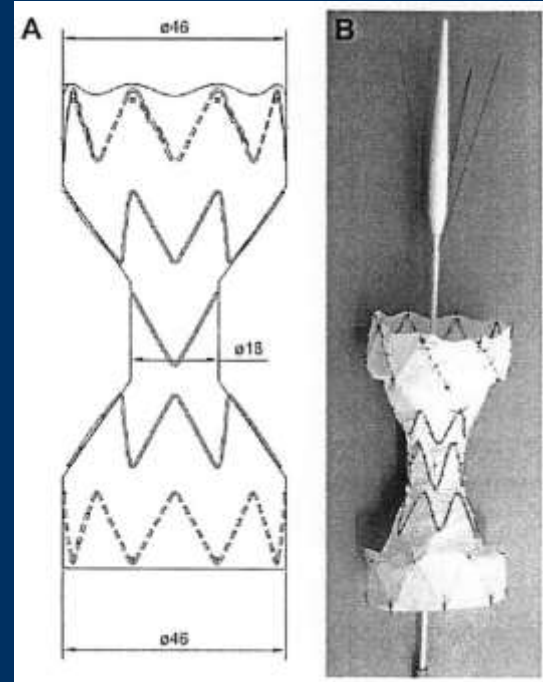
Chronic/subacute: 17/1

Follow up periods: mean 9 M (0 - 26 M)

Technical success: 100%, Clinical success: 94%

Complete FL occlusion: 15/18 (83%) on 30-day CT

(rupture, re-intervention, resolved spontaneously)



AVP II (22mm) or ZIP Occluder (20mm)
(Cook Medical)

Is Candy-Plug using Excluder aortic cuff feasible?

- ✓ Quickly and easy to prepare
- ✓ It takes time to achieve complete AVP embolization
 - with coil or NBCA? or other embolic materials
- ✓ Maximum size of Ex-cuff is 36 mm
 - using double Ex-cuff or main body may be considered if the large FL of $\geq 36\text{mm}$
- ✓ Need long term investigation

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