



UNIVERSITY HOSPITAL
COLOGNE



Should we stent all uncomplicated type B dissection?

J. Brunkwall

Dept of Vascular Surgery

jan.brunkwall@uk-koeln.de



NO



Natural History DeBakey III

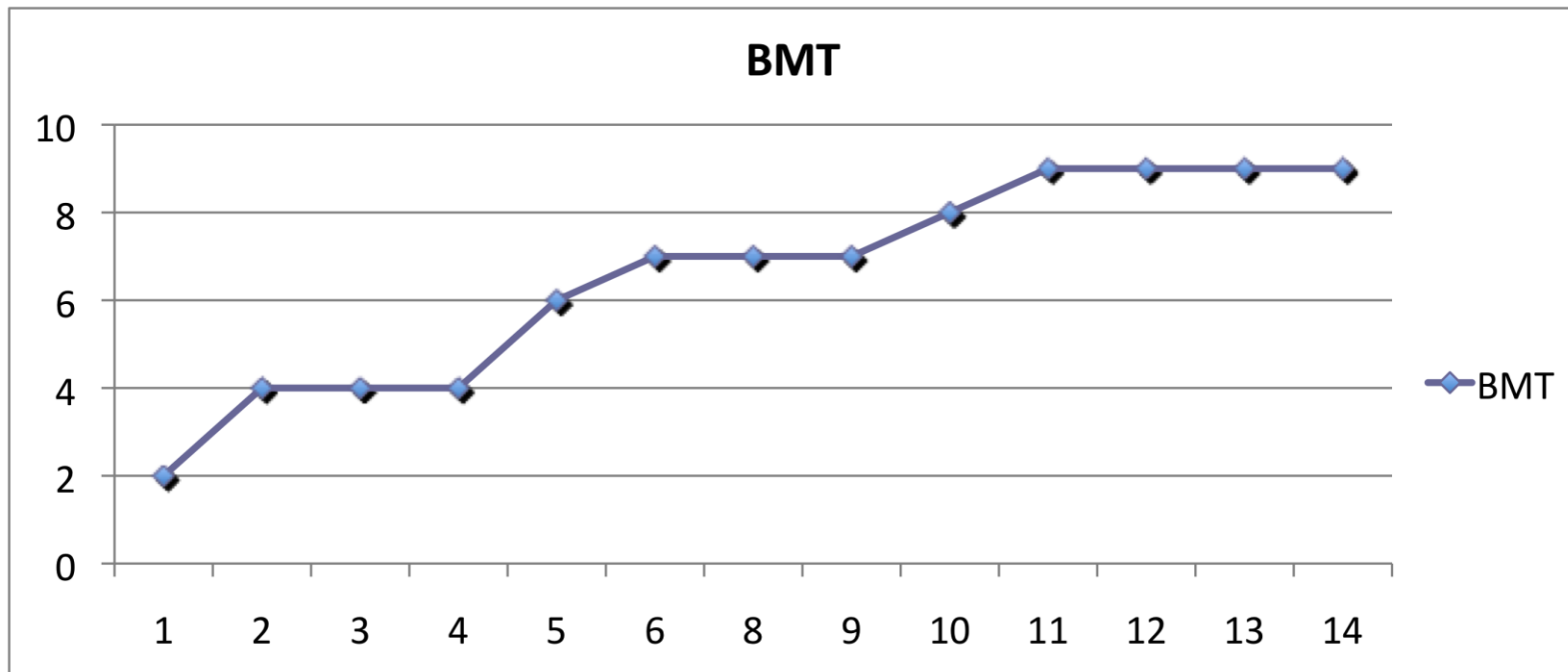
In the late fifties:

- 14 day mortality 75%
- 3 month mortality 90%
- Sixties:
- BMT < 30 days 40%

Now 10%



Mortality Acute Dissection (IRAD)





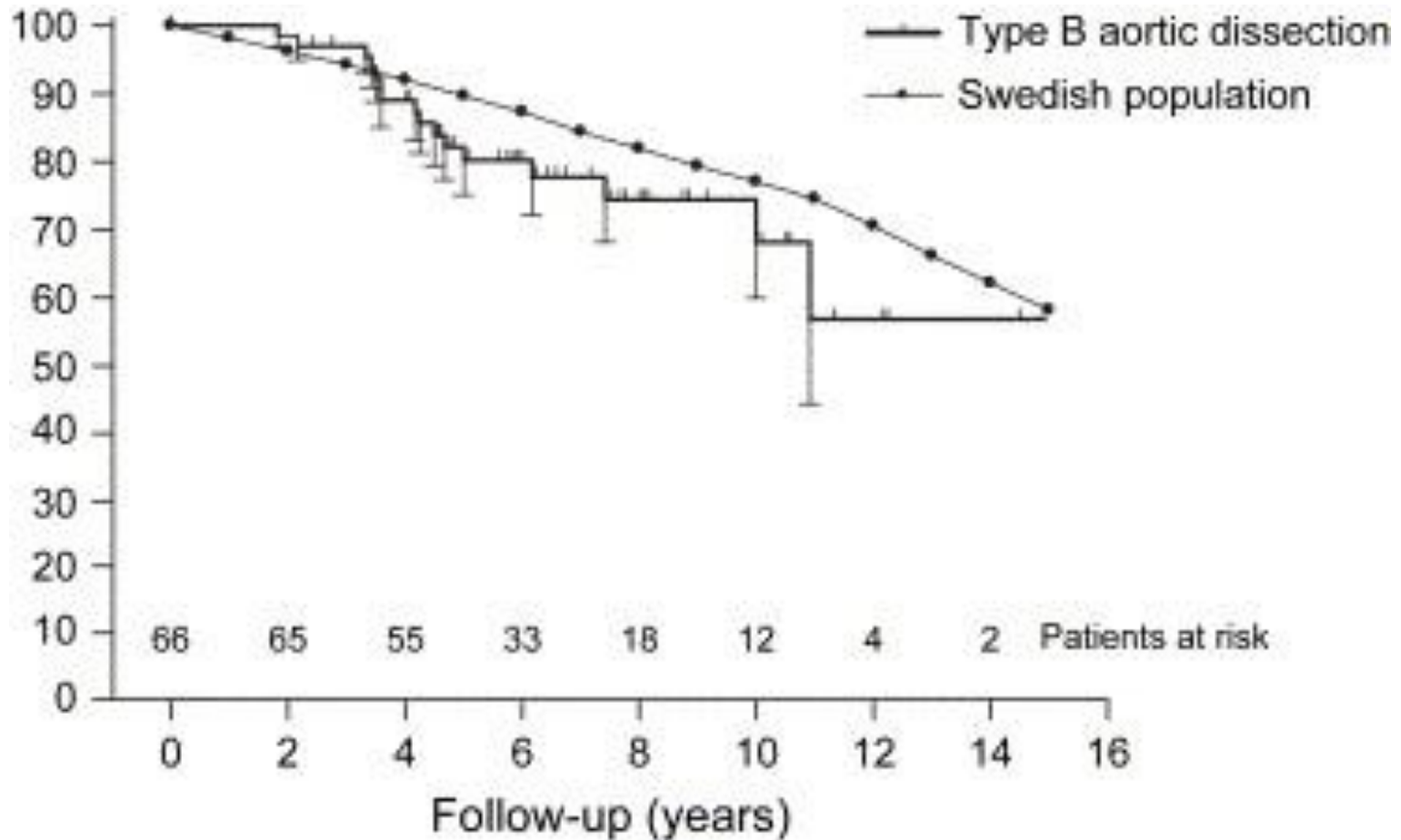
Mortality Acute Dissection (IRAD)

uncomplicated

6%

Trimarchi S, et al
J Cardiovasc Surg (Torino). 2012
Apr;53(2):161-8.

Survival of an outpatient cohort





YES

we should stent all uncomplicated
type B dissections





Yes

Malperfusion Drives Morbidity and Mortality

Although in this series the morbidity for fenestration (connect-

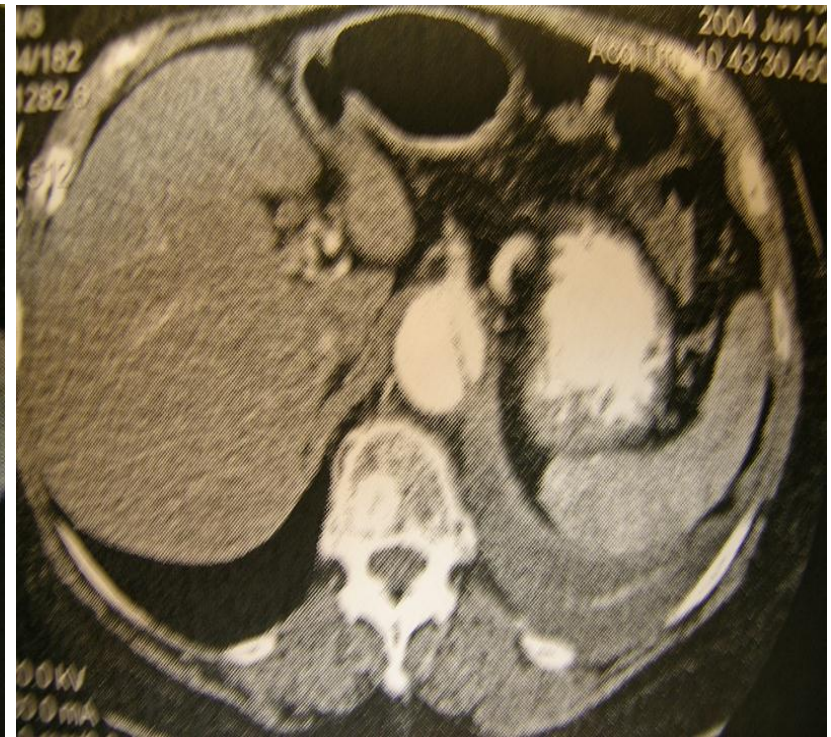


Fenestration or branch vessel stenting

Author	Year	No pat	Patency	Mortality
Slonim	1999	40	37/40	10/40
Patel	2009	69	64/69	12/69
Park	2009	20	18/20	18/20
Midulla	2011	35	34/35	12/35
Total		164	153/164 97%	52/129 32%

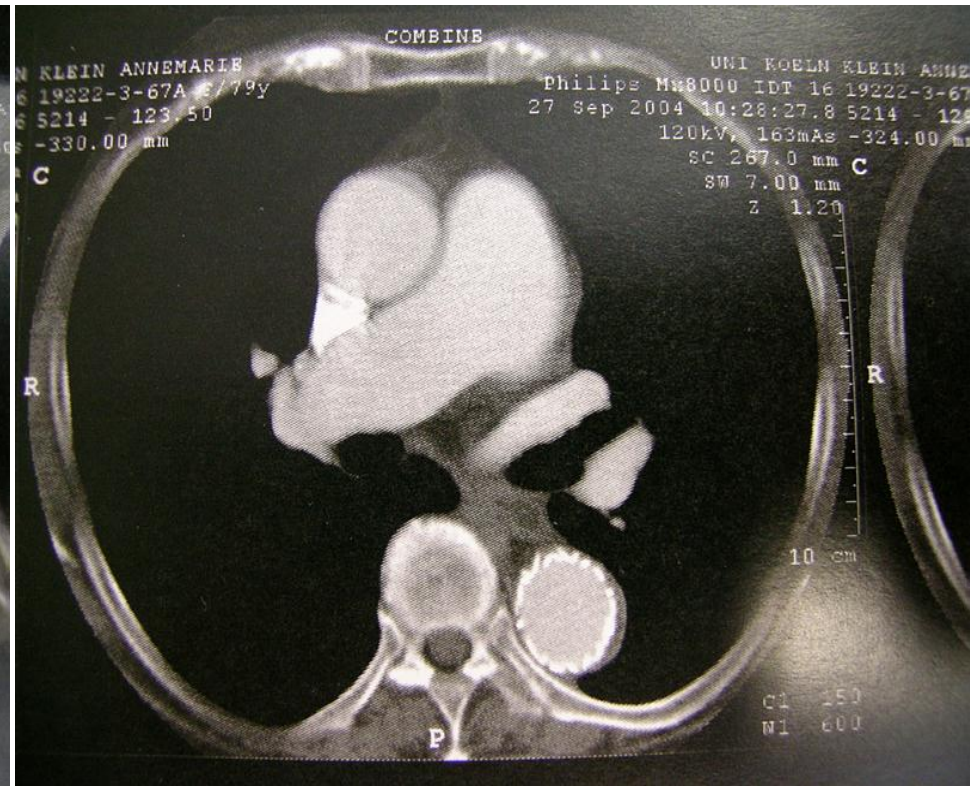
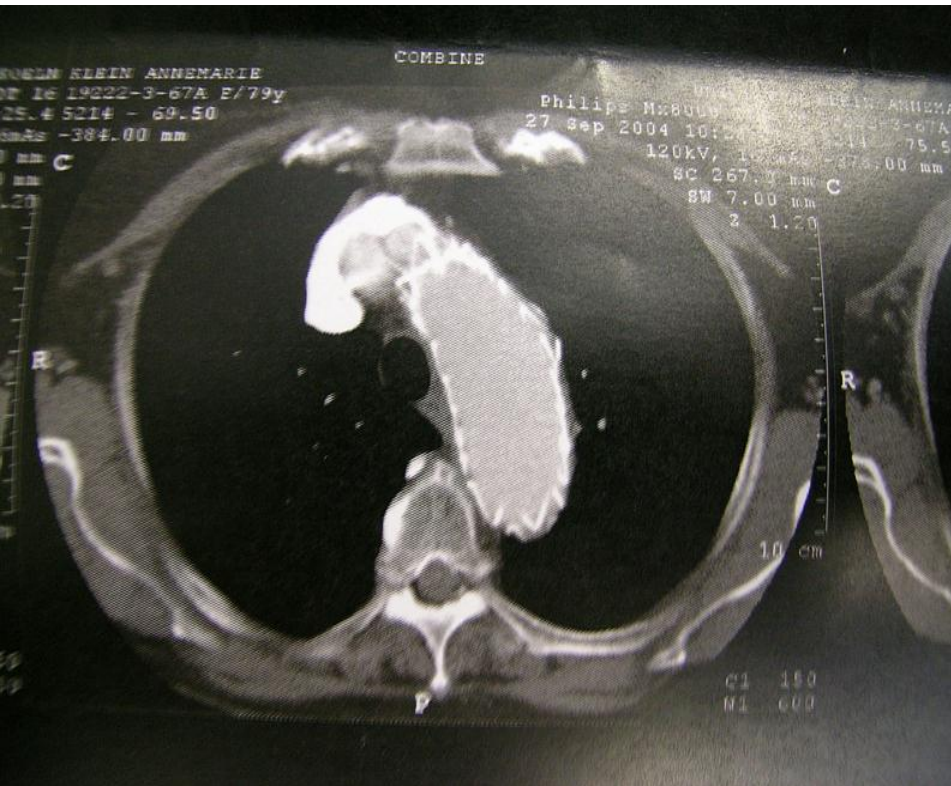


Acute Dissection DeBakey IIIb





Acute Dissection 3 Months after TEVAR





Yes

	Medical	Open	TEVAR
Mortality	10.1%	23.4%	5.7%
Paraplegia	?	6.6%	2.4%



Yes

Trimarchi et al

Acquired Cardiovascular Disease

Importance of false lumen thrombosis in type B aortic dissection prognosis

Santi Trimarchi, MD, PhD,^a Jip L. Tolenaar, MD,^a Frederik H. W. Jonker, MD, PhD,^b Brian Murray, MD,^c Thomas T. Tsai, MD,^d Kim A. Eagle, MD,^e Vincenzo Rampoldi, MD,^a Hence J. M. Verhagen, MD, PhD,^f Joost A. van Herwaarden, MD, PhD,^g Frans L. Moll, MD, PhD,^g Bart E. Muhs, MD, PhD,^h and John A. Elefteriades, MD^c



Yes

Conclusions: In patients with acute type B aortic dissection, aortic segments with a partially thrombosed false lumen have a significantly higher annual aortic growth rate when compared with those presenting with patent or complete thrombosis of the false lumen. Therefore, patients with partial thrombosis require more intensive follow-up and may benefit from prophylactic intervention. (J Thorac Cardiovasc Surg 2012; ■:1-5)

Patients with type B Dissections and partial thrombosis have greater annual growth rate than those with complete or no thrombosis



False lumen thrombosis (ADSORB)

	Complete thrombosis	Partial /None Thrombosis
BMT	3%	65%
BMT+TAG	57%	13%
P	<0.001	<0.001



BMT to TAG Crossovers <4days (ADSORB)

Case 1.

Aortic Dilatation

Case 2.

Mesenteric Ischemia

Case 3.

Difficult blood pressure control → retrograde dissection



Results (ADSORB)

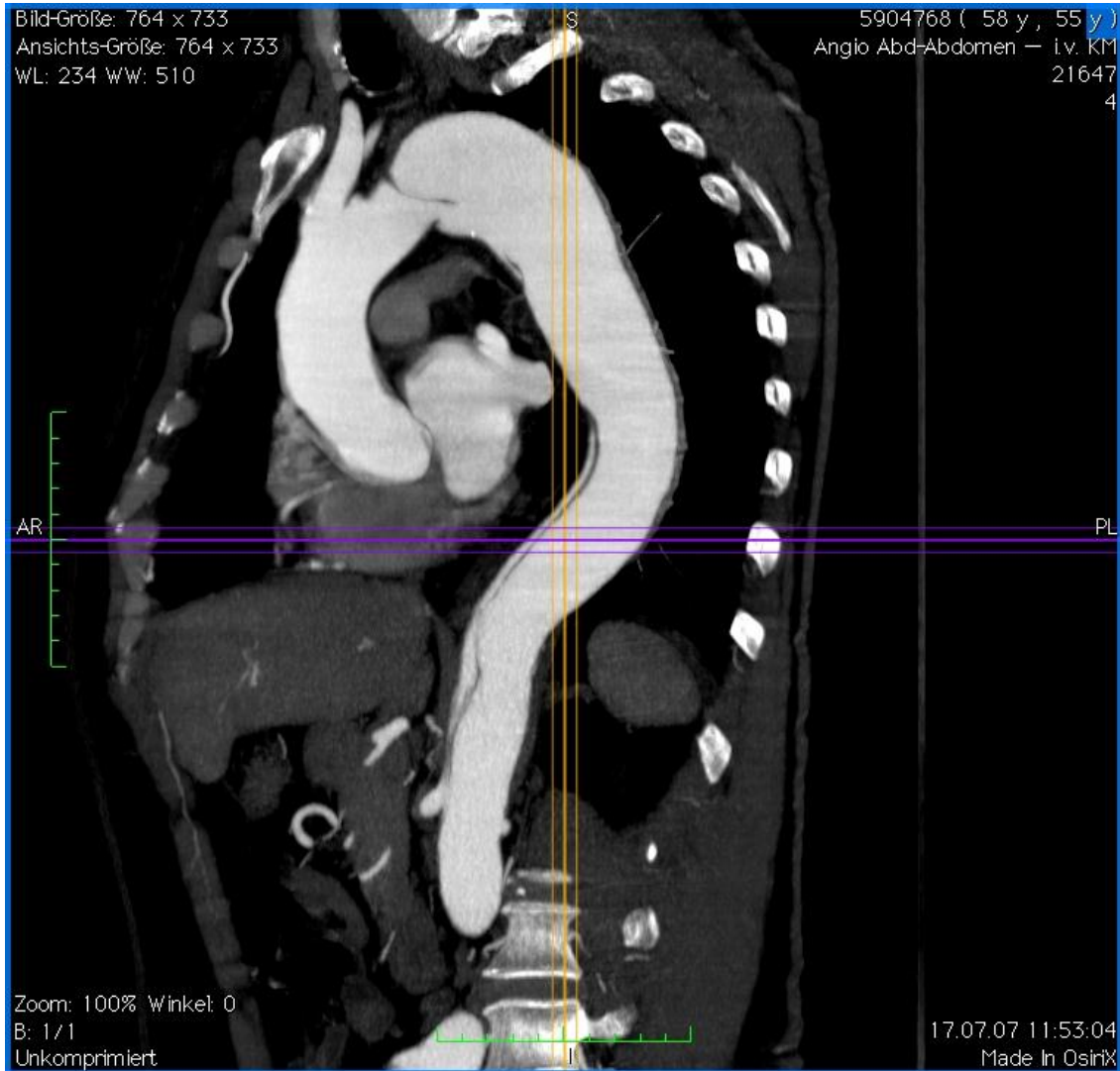
No deaths

No strokes

No paraplegia



Acute Type IIIB Dissection



3 Years later





BMT Follow up 1 year (ADSORB)

Case 4.

Expansion to over 6 cm

Case 5.

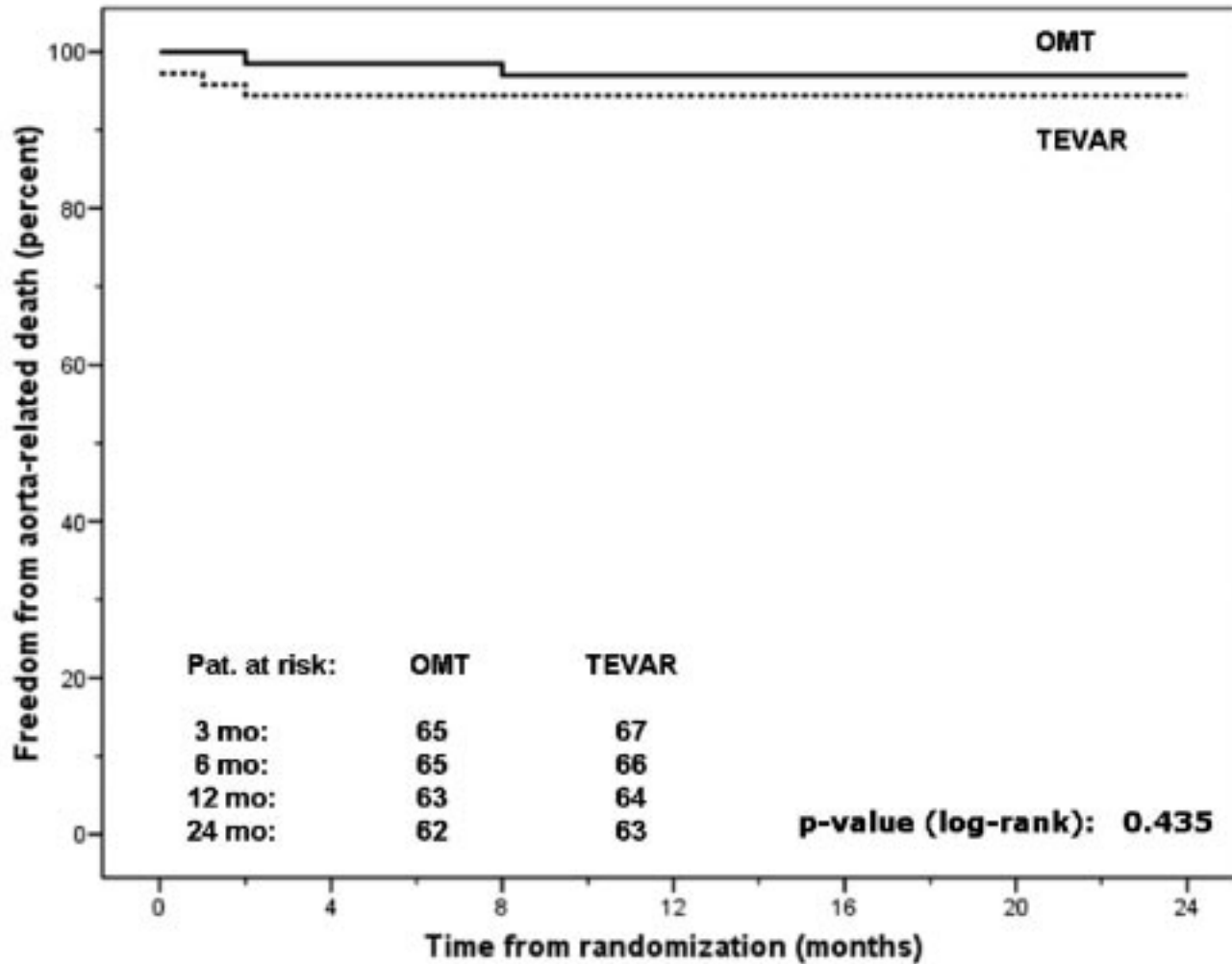
Fenestration (malperfusion)



	OMT	OMT+TEVAR	P value
Max Aortic Diameter	48.3	43.8±12.5	0.31
True lumen maxaorta	22.7±10.9	32.3±6.4	<0.001
True lumen midaorta	18.3±7.8	27.0±7.3	<0.001
False lumen maxaorta	26.8±9.4	12.5±16.7	<0.001
False Lumen midaorta	26.9±10.3	13.8±14.9	<0.001



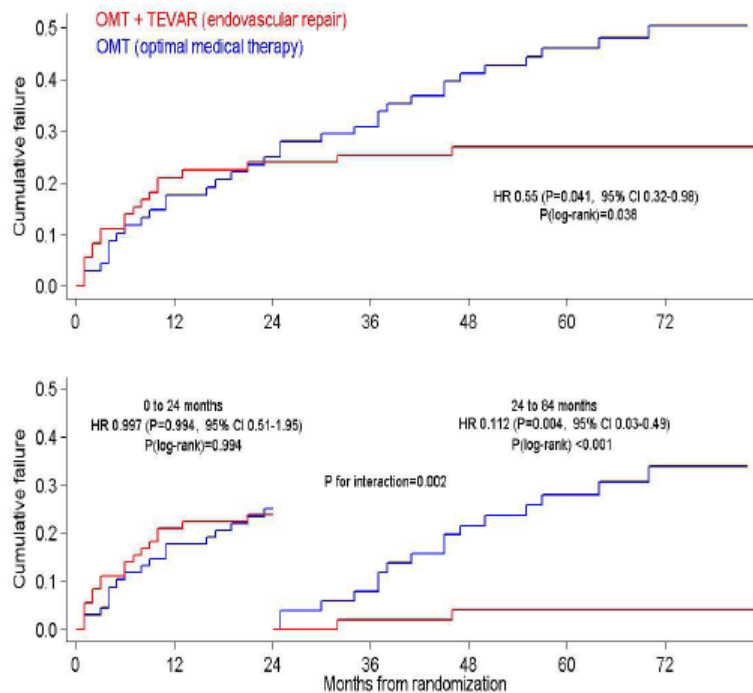
B Freedom from aorta-related mortality within 24 months after randomization





INSTEAD

- Uncomplicated type B dissection - INSTEAD trial: 5-years follow-up



At 5 years:

Death
19.3 OMT vs 11.1 TEVAR

Disease progression
46.1% OMT vs 27% TEVAR

submitted to New Engl J Med



Conclusions

It is safe to place a TAG device in acute uncomplicated type B dissections

Aortic remodeling after one year is in favor of TAG placement

5/31 BMT patients had aortic events within one year



Conclusions

Longterm survival is better in stentgrafted patients
(INSTEAD)

More and more speak in favor of stentgrafting of
uncomplicated type B dissections



UNIVERSITY HOSPITAL
COLOGNE



Thank you very much for your attention

