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COLOGNE

Controversy: timing of TEVAR for uncomplicated acute type B dissection Early intervention is the best choice

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Disclosures

Speaker name:

.....Jan Brunkwall.....

- ☐ I have the following potential conflicts of interest to report:
- ☒ Consulting
- ☐ Gore, Endologix, Vascutek, Astra Zeneca, Cordis, Jotec
- ☐ Employment in industry
- ☐ Shareholder in a healthcare company
- ☐ Owner of a healthcare company
- ☐ Other(s)

☐ I do not have any potential conflict of interest

Disclosures

- Endovascular Believer
- Matt Thompsson Friend and Believer
- Vascular and Endovascular Surgeon

Google: Matt Thompson and Dissection

There are many classification s
dissection, but the most useful
classification, which classifies
those originating in the ascend
A) and those in the descending
(Type B).

Type B aortic dissections requi
when they are complicated by
imminent rupture or malperfu
historically was associated with
30%. Despite the relative infan
se procedures are now routinely used in the treatment of Type
dovascular treatment of acute complicated Type B dissections
and suggest a substantial early mortality advantage over open

om the US in patient sample has identified a considerable mo
surgical repair. Less certain is the place of endovascular thera
s or in lesions that may be classified as sub-acute (between tw
dissection). There is a relatively sparse literature reporting the
apy in non-acute dissections.

Who will win?

Complications to acute descending aortic dissection

Rupture

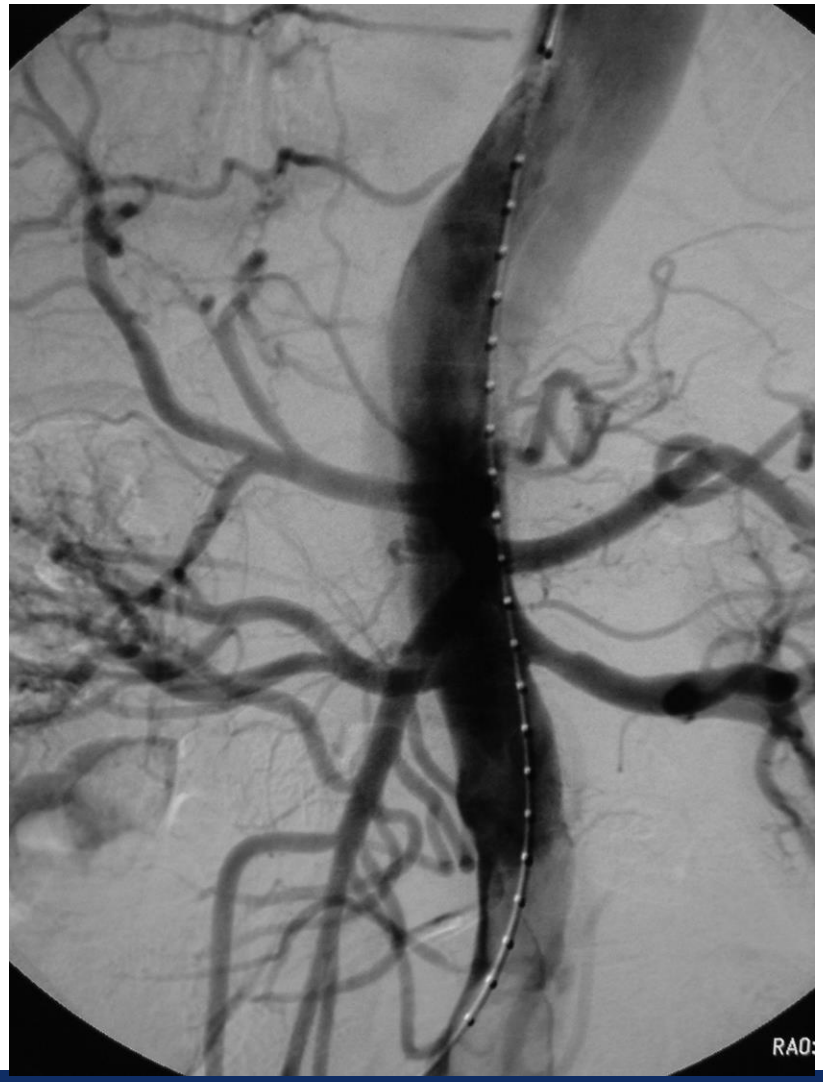
Malperfusion

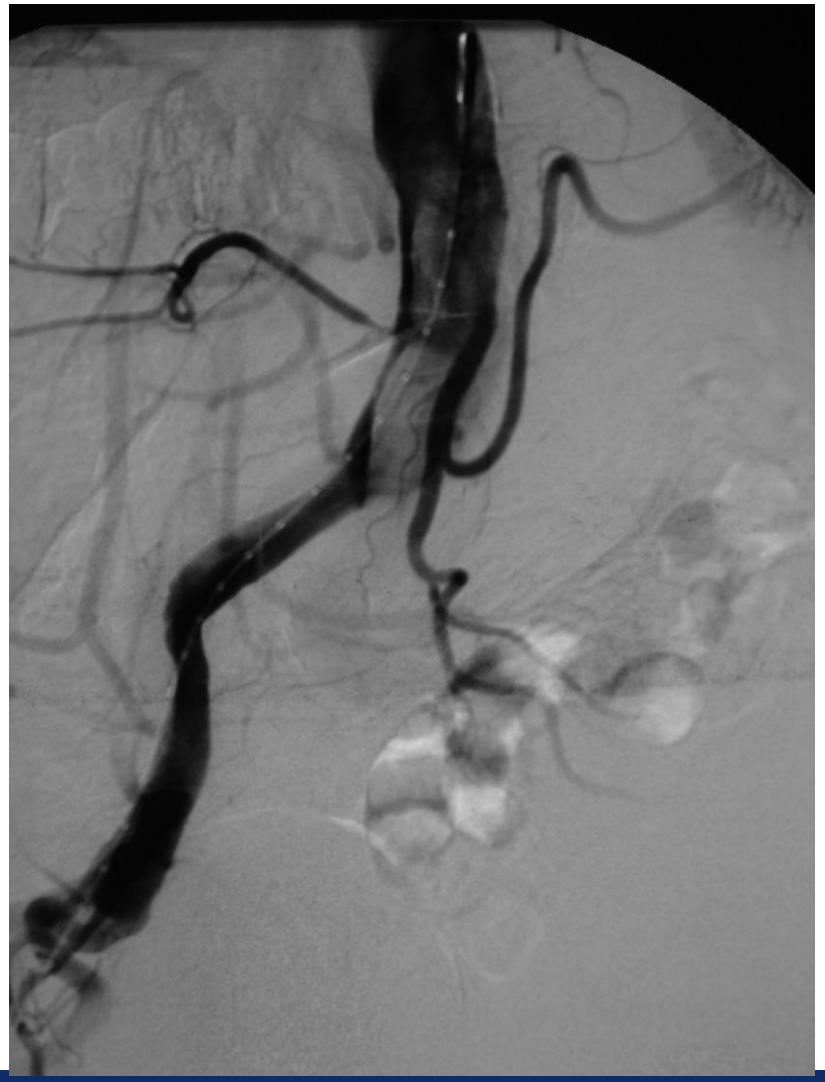
- Renals
- Spine
- Intestines
- Lower limbs

Hypertension

Aneurysm formation

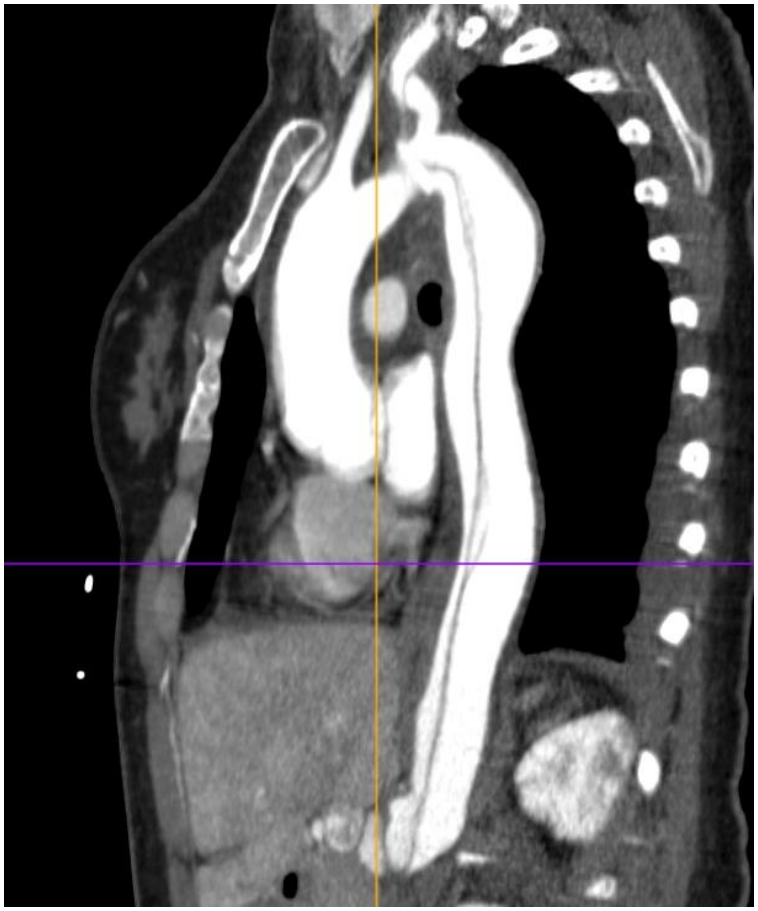
Malperfusion drives mortality in AD



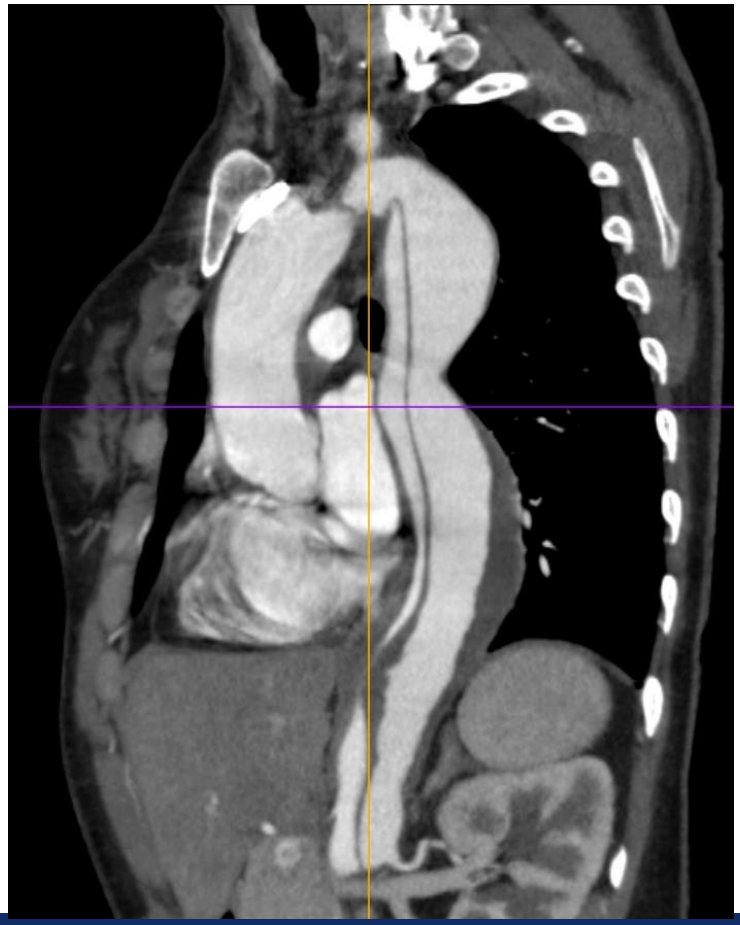


Complications to BMT in AD

Primary AD



One year later



What do we achieve with TEVAR in TBAD?

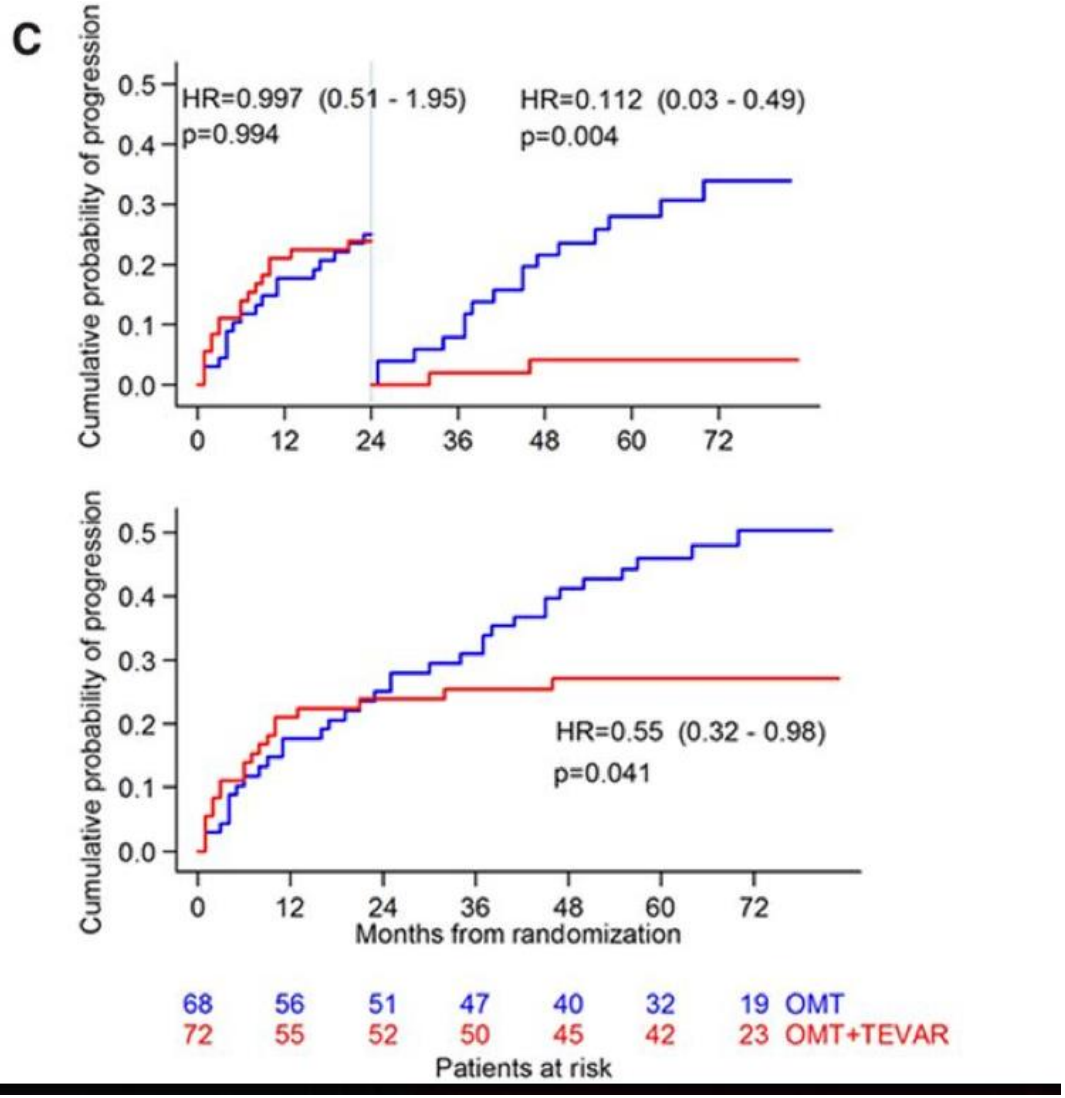
Less later interventions

Less mortality after 5 years

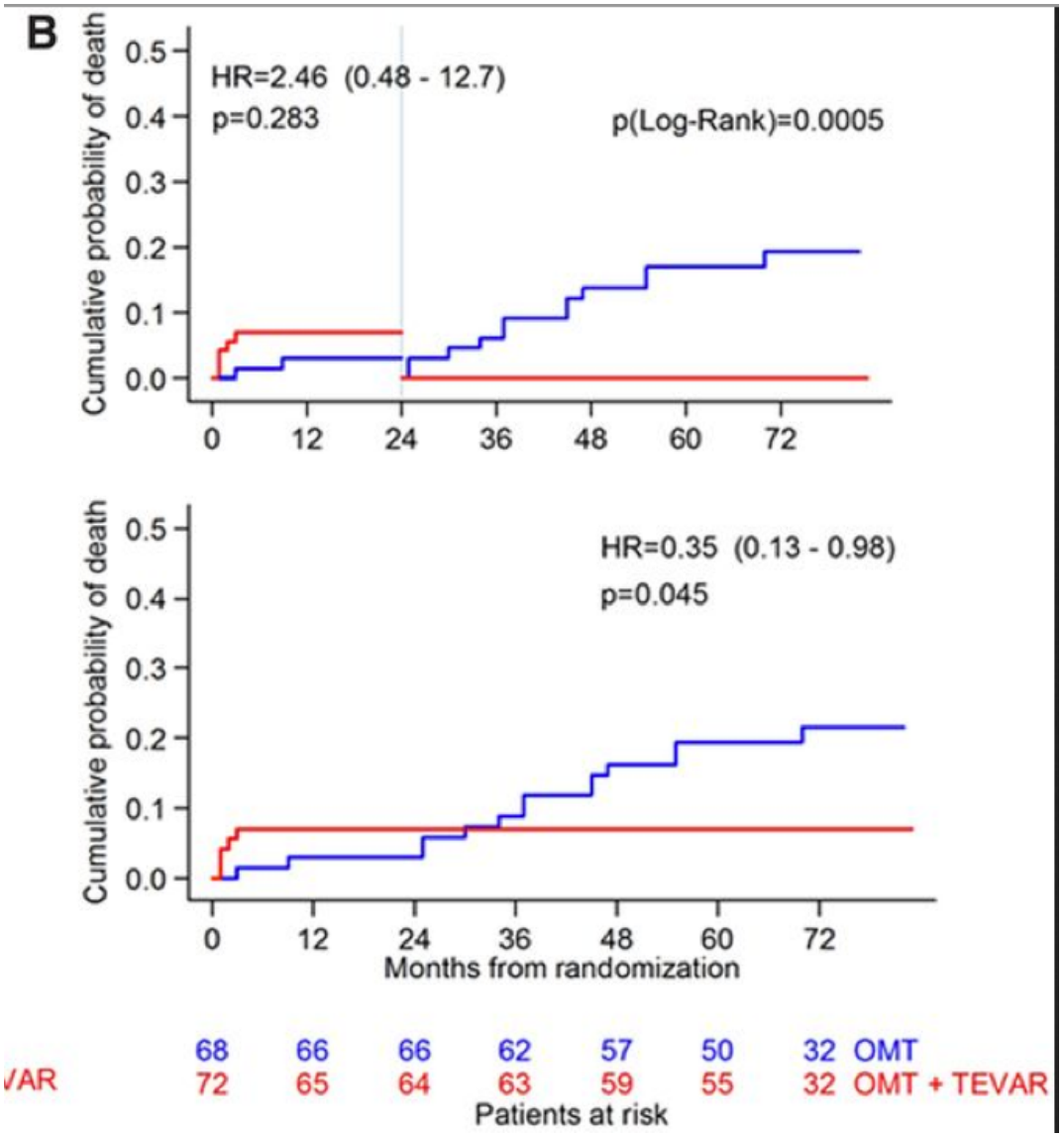
Remodeling with “Restitutio ad integrum”

If done in the acute setting

Instead 5 years progression

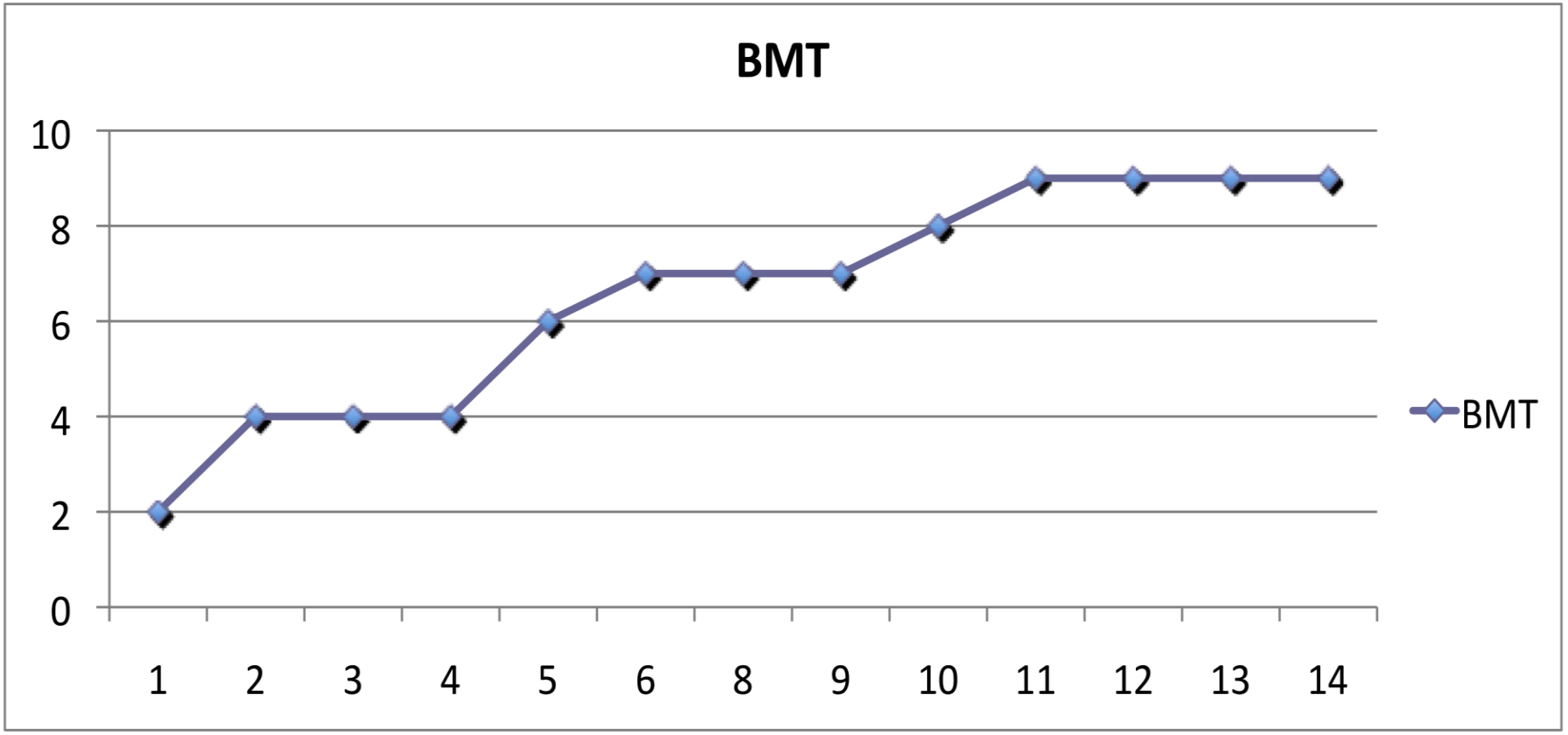


Instead 5 years Death



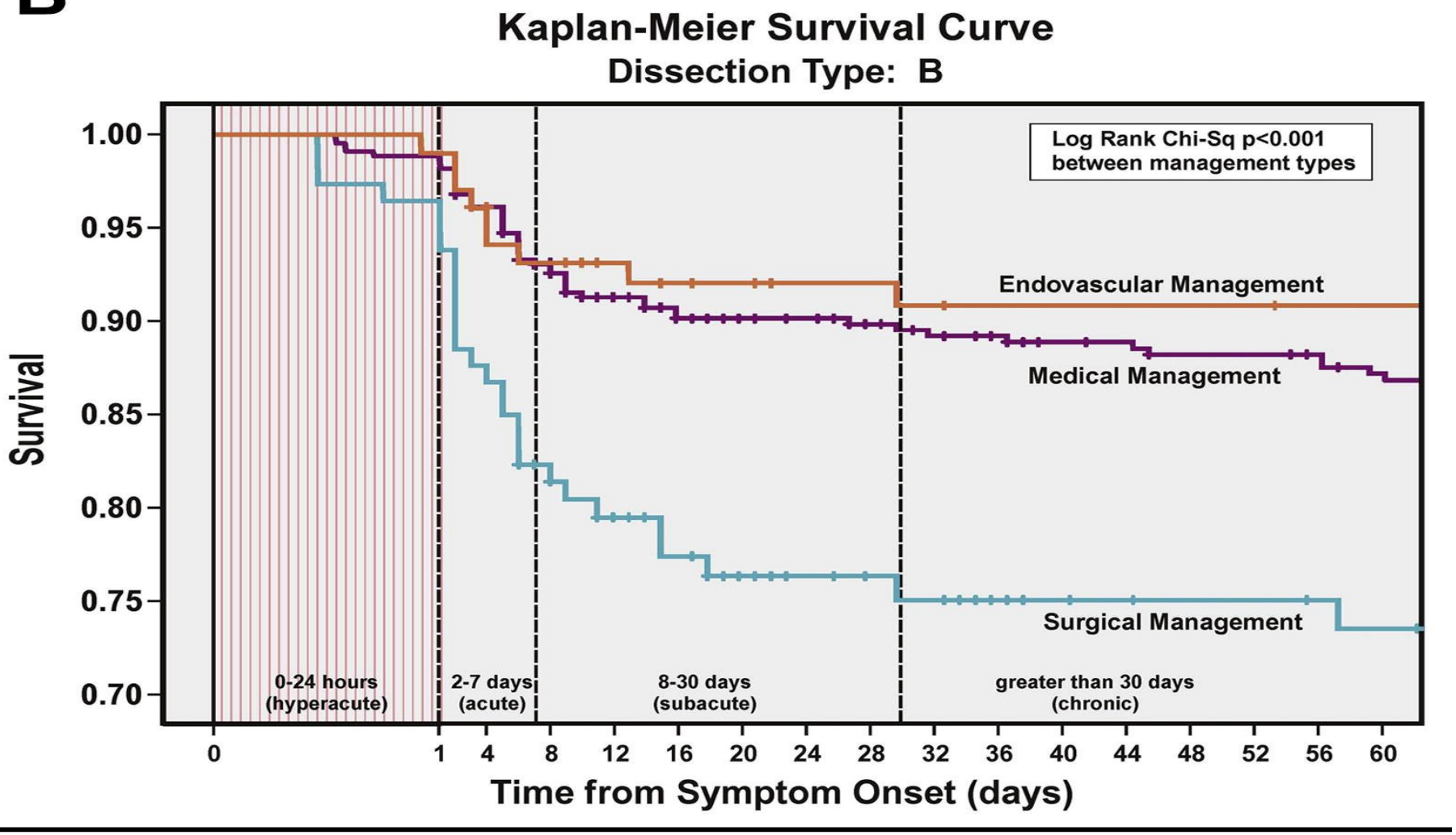
Early

Mortality Acute Dissection (IRAD)



Tsai et al EJVES 2009

B



Anna M. Booher , Eric M. Isselbacher , Christoph A. Nienaber , Santi Trimarchi , Arturo Evangelista , Daniel G. Mo... The American Journal of Medicine Volume 126, Issue 8 2013 730.e19 - 730.e24

Is it not dangerous to place a stentgraft in the acute setting?

Risk for retrograde Type A dissection

Malperfusion distally

Stroke

Paraplegia

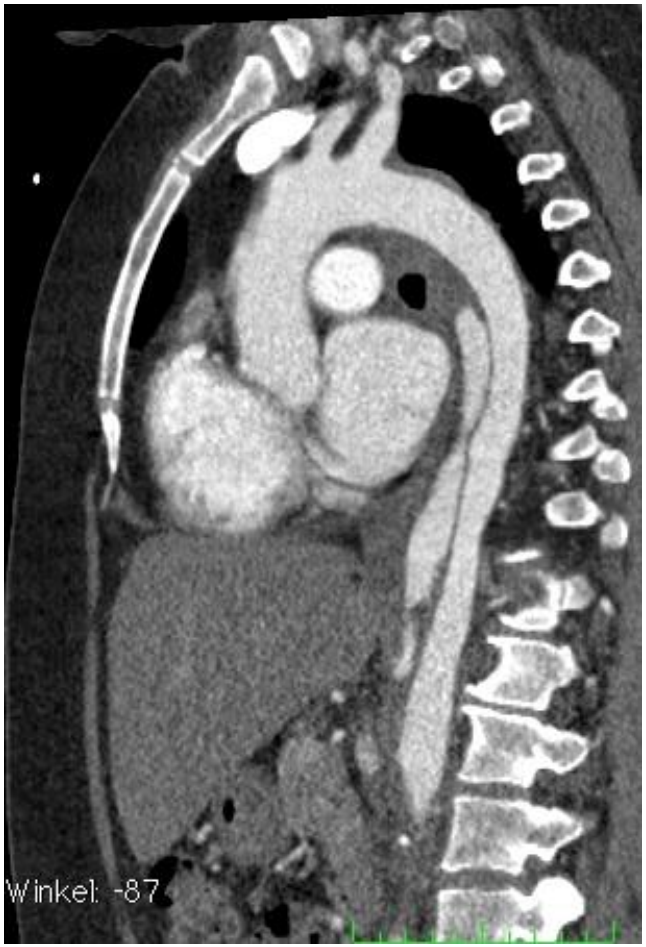
We cannot treat the whole dissection anyway

Mortality lower with TEVAR than BMT

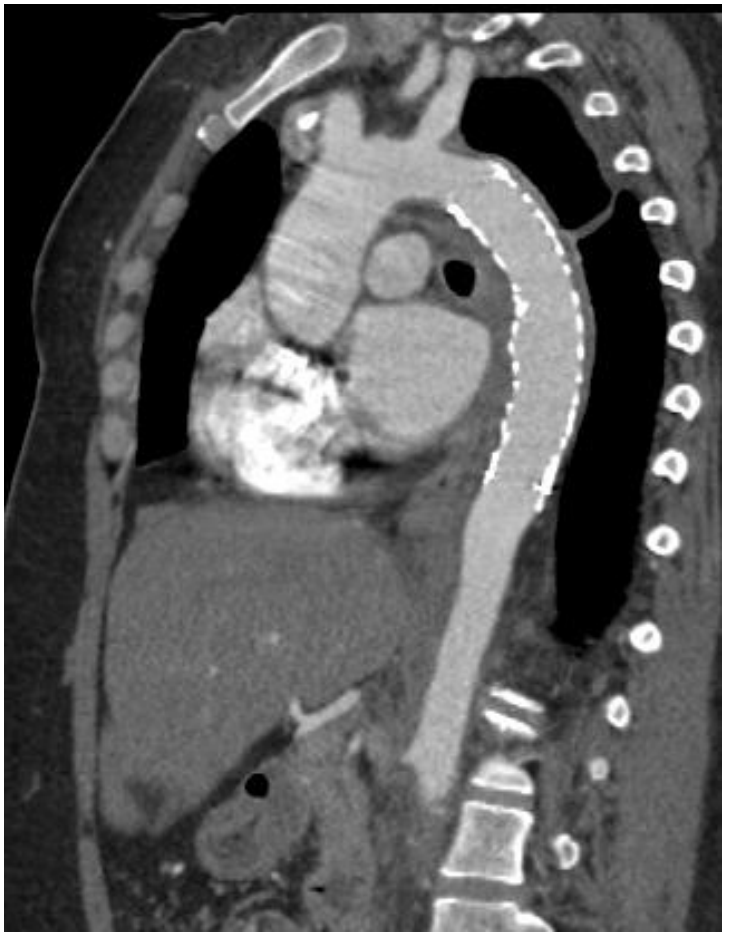
	Group A	Group B		
	TEVAR	Open surgical repair	Medical management	*P* value*
Mortality and hospital stay				
Mortality at 30 d	2 (4%)	8 (40%)	4 (33%)	.006
Hospital stay (d, mean ± SD)	15.9 ± 11.4	16.6 ± 14.8	15.9 ± 10.2	.865
Postoperative complications				
Cardiac complications	3 (7%)	3 (15%)	2 (17%)	.265
Postoperative myocardial infarction	1 (2%)	1 (5%)	1 (8%)	.373
Acute renal failure	19 (42%)	4 (20%)	9 (75%)	.539
Requirement for dialysis	4 (9%)	3 (15%)	2 (17%)	.304
Gut ischemia	4 (9%)	1 (5%)	1 (8%)	.621
Respiratory failure	9 (20%)	2 (10%)	3 (25%)	.791
Paraplegia	6 (13%)	2 (10%)	1 (8%)	.728
Stroke	3 (7%)	0 (0%)	2 (17%)	.659

TAG® in acute dissection

DeBakey IIIA



One year follow up



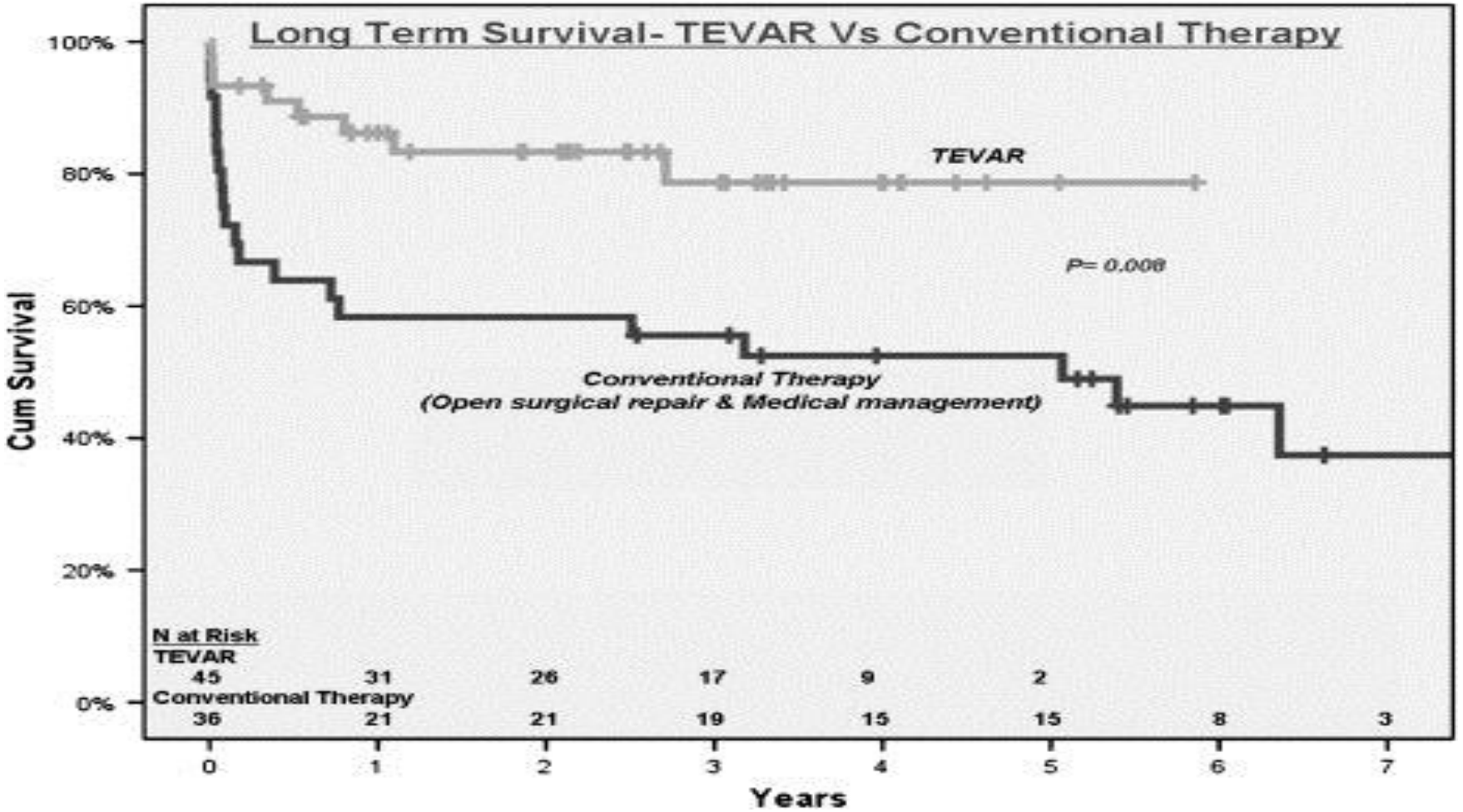
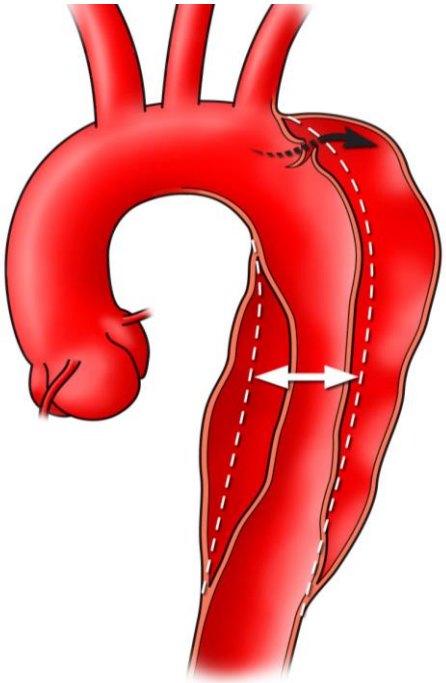
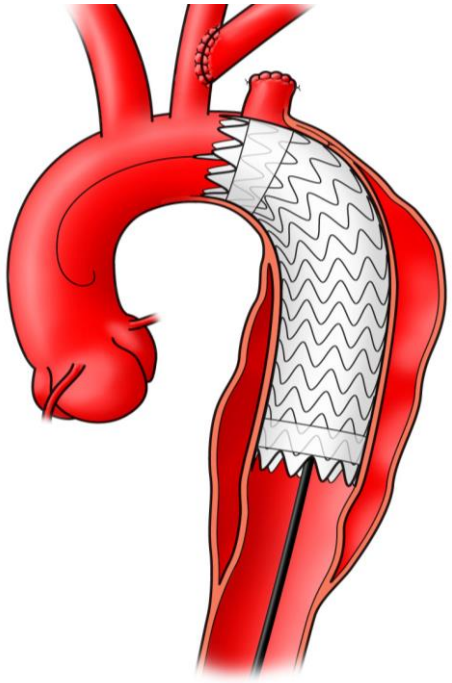


Figure 2 Kaplan–Meier survival curve demonstrating improved midterm survival with thoracic endovascular aortic repair (TEVAR) versus conventional open surgical and medical management (log-rank test, P = .008).

Ahmad Zeeshan , et al
The Journal of Thoracic and Cardiovascular Surgery Volume 140, Issue 6, Supplement 2010 S109 - S115

Acute Dissection: Stent Graft OR Best Medical Therapy
Prospective Randomised trial





ADSORB trial

No deaths in neither group

No strokes

No paraplegia

BMT to TAG Crossovers <4days

Case 1.

Aortic Dilatation

Case 2.

Mesenteric Ischemia

Case 3.

Difficult blood pressure control → retrograde dissection

BMT Follow up

Case 4.

Expansion to over 6 cm

Case 5.

Fenestration (malperfusion)

What are the possible benefits of early intervention?

Fewer deaths

Less malperfusion

Less hypertensive medication

Earlier discharge

Summary

Acute Dissection is life threatening

The first 14 days are critical

Early treatment is not dangerous

It may safe lives!

What Matt tells us publically

A recent report from the US in patient sample has identified a considerable mortality advantage over conventional surgical repair. Less certain is the place of endovascular therapy for chronic Type B dissections or in lesions that may be classified as sub-acute (between two and six weeks after the onset of dissection). There is a relatively sparse literature reporting the outcomes of endovascular therapy in non-acute dissections.

Let us listen to Matt!

Thank you very much for your attention