



Midterm results of emergency endovascular stent grafting in acute complicated type B dissection: A multicenter retrospective analysis

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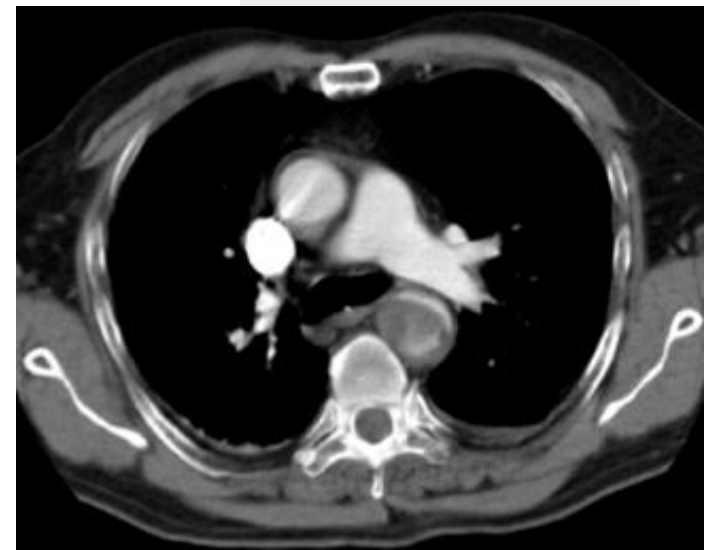


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No disclosures

Introduction

- acTBAD: rupture or malperfusion - high risk!
- 15-50% mortality after surgical repair
- TEVAR: interventional treatment modality for increasing number of patients
- Outcome of TEVAR varies according to indications and patient characteristics



AIM

- Assess midterm results of emergency TEVAR for patients with life-threatening complications of acute type B aortic dissection



Patients and Methods

- 6 sites (1 US, 5 European)
- March 1999 – Nov 2011
- 110 consecutive patients undergoing TEVAR for acTBAD
- 86 male, 24 female
- Mean age 61y (range 19-87)

Demographics and comorbidities

Diabetes	14 (12.7%)
Marfan syndrom	0
History of cancer	1 (0.9%)
Previous cerebrovasc. injury	4 (3.6%)
COPD	6 (5.5%)
Arterial hypertension	90 (81.8%)
Renal failure (dialysis)	2 (1.8%)
History of MI	7 (6.4%)
Smoker	14 (12.7%)
Previous aortic surgery	11 (10%)
Previous cardiac surgery	3 (2.7%)

Status at presentation

Malperfusion	61 (55.5%)
Rupture	59 (53.6%)
Pain at onset	43 (39.1%)
Unstable at presentation	74 (67.3%)
Intubated	4 (3.6%)
Paralysis before intervention	0
Paraperesis before intervention	1 (0.9%)

Interventional details

Femoral access	106 (96.4%)
Iliac access	4 (3.6%)
Number of stengrafts	1.5 (1-4)
Overstenting subclavia	19 (17.3%)

Type of stentgraft	
Talent (Medtronic)	54 (49%)
Gore TAG	47 (42.7%)
Relay	4 (3.6%)
Zenith	4 (3.6%)
Hemashield	1 (0.9%)

Additional procedures

Additional procedures	15 (13.6%)
Second aortic stent procedure	6 (5.4%)
Iliac stenting	2 (1.8%)
Fenestration	2 (1.8%)
Left subclavian transposition	2 (1.8%)
Arch debranching	1 (0.9%)
Carotid subclavian bypass	1 (0.9%)
Infrarenal aortic replacement	1 (0.9%)

Postinterventional outcome

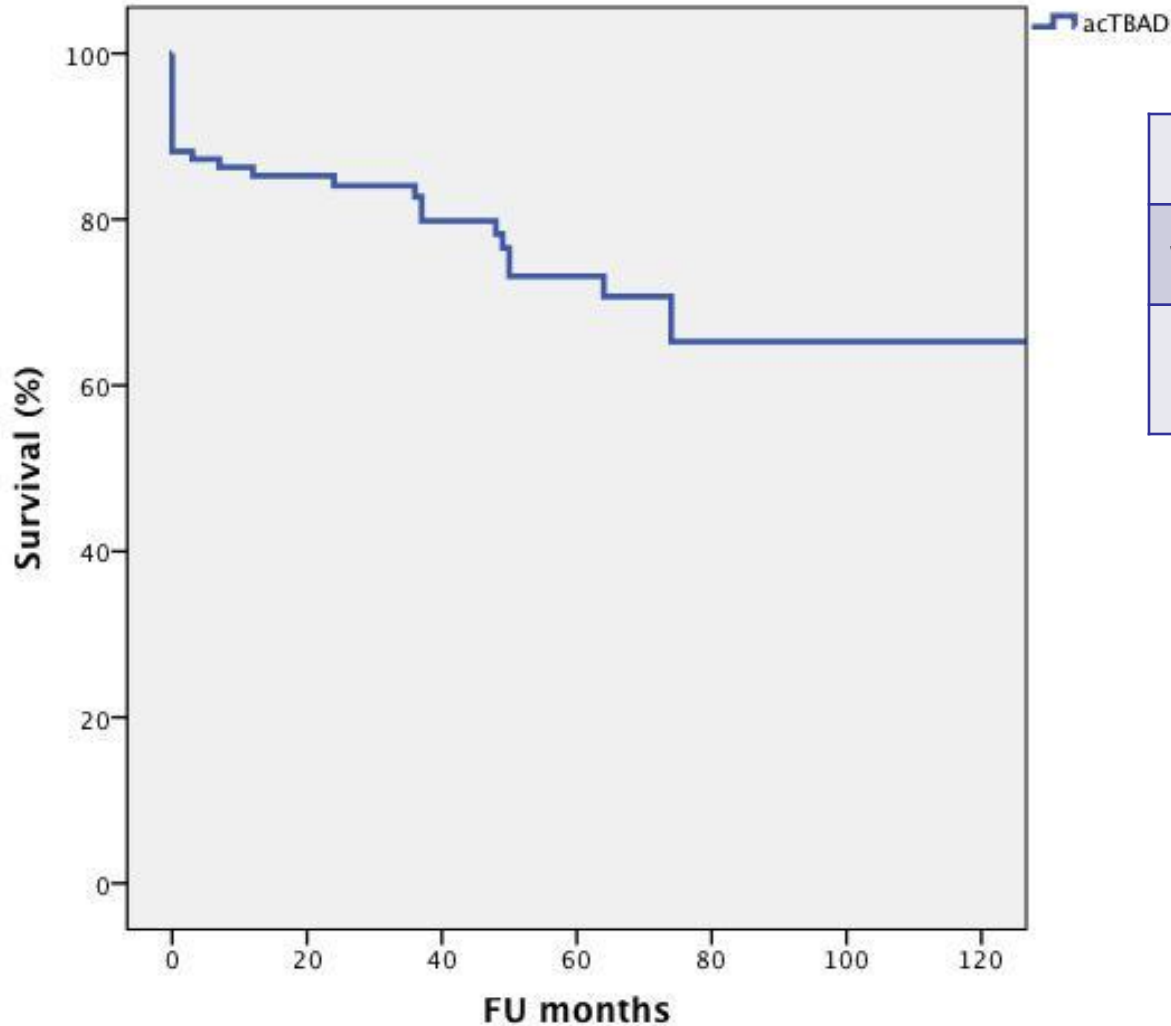
In hospital death	13 (11.8%)
Early Endoleak	9 (8%)
Late Endoleak	8 (7.3%)
Surgical Intervention /Conversion	12 (10.9%)
Complete thrombosis of thoracic false lumen	67 (60.9%)
Partial thrombosis of thoracic false lumen	25 (22.7%)
Complete thrombosis of abdominal false lumen	8 (7.3%)
Partial thrombosis of abdominal false lumen	26 (23.6%)

Complications

Postinterventional complications	32 (36%)
Retrograde type A dissection	6 (5.4%)
Postoperative renal failure	10 (9%)
New permanent neurological deficit	5 (4.5%)
Mesenteric ischemia	2 (1.8%)
Gastrointestinal bleeding	3 (2.7%)
Hemothorax / secondary rupture	3 (2.7%)
Liver malperfusion	1 (0.9%)
Lower limb ischemia	2 (1.8%)

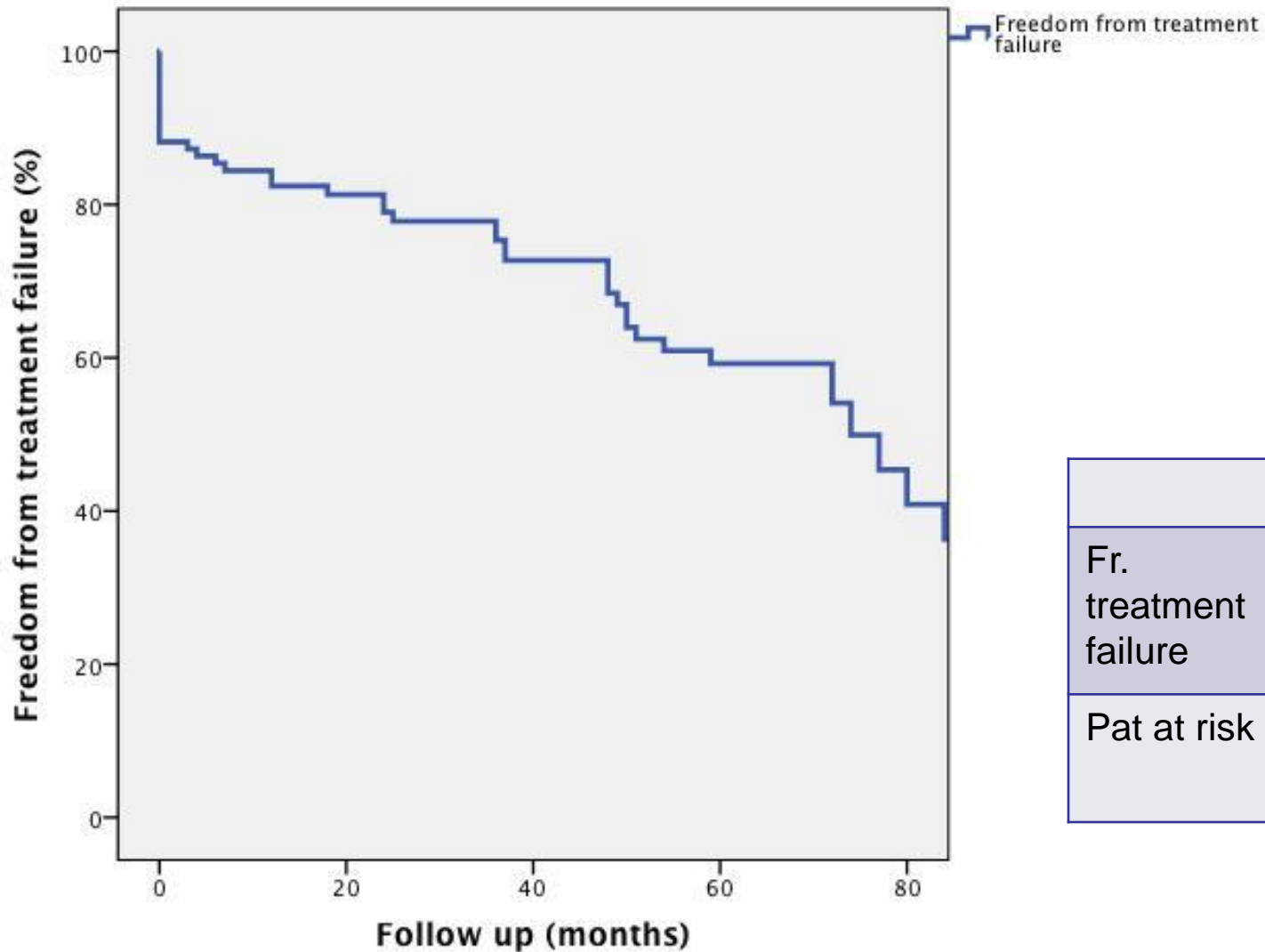
Surgical Interventions

Surgical Intervention / Conversion	12 (10.9 %)
Repair of retrograde type A dissection	6 (5.4%) (1 chronic)
Thoracoabdominal aortic replacement due to type III endoleak	2 (1.8%)
Thoracotomy due hemothorax / rupture	2 (1.8%)
AAA	1 (0.9%)
Small bowel resection	1 (0.9%)



	1-y	3y	5y
Survival	85%	83%	73%
Pat at risk	83	63	34

Median follow up:
37 months (0-144)



	1-y	3y	5y
Fr. treatment failure	82%	75%	59%
Pat at risk	83	62	34

Conclusion

- TEVAR for acTBAD is feasible and effective
- Survival rates superior to surgical series in the scientific literature
- Major advantages: quick access, less invasive
- Nevertheless considerable complication rate
- acTBAD seems to be an ideal indication for TEVAR