

# Proximal reoperation after Type A dissection: results from international multicenter registry.

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# Background

- **Data about proximal aortic reoperation after Type A dissection are mostly based on single center experience and mixed proximal and distal reoperation**
- **We aimed to investigate the fate of proximal aorta after Type A dissection, utilizing a large international multicenter registry**

# Methods

- Data were extracted from an observational, multicenter, retrospective cohort study including 3902 patients who underwent surgery for TAAD at 18 tertiary hospitals.
- A total of 115 patients underwent a reoperation at the level of the proximal aorta.
- Freedom from reoperation was estimated with cumulative incidence survival and Fine-Gray competing risk regression model was used to identify independent risk factors for reoperation.

# Preoperative characteristics and presentation

Characteristic	no, N = 3,787 <sup>1</sup>	yes, N = 115 <sup>1</sup>	p-value <sup>2</sup>
Age	65 (55, 74)	57 (48, 66)	<0.001
Female	1,159 (31%)	26 (23%)	0.066
Creatinine	92 (77, 115)	88 (76, 115)	0.4
Diabetes	194 (5.1%)	2 (1.7%)	0.10
Priorstroke	151 (4.0%)	2 (1.7%)	0.3
COPD	324 (8.6%)	3 (2.6%)	0.023
PVD	192 (5.1%)	7 (6.1%)	0.6
Poormobility	155 (4.1%)	4 (3.5%)	>0.9
NYHA			0.7
I	1,132 (44%)	30 (39%)	
II	694 (27%)	20 (26%)	
III	386 (15%)	12 (16%)	
IV	388 (15%)	15 (19%)	
Recent MI	137 (3.6%)	4 (3.5%)	>0.9
Arterial Lactate	1.60 (1.00, 2.80)	1.40 (1.00, 2.30)	0.066
Marfan	67 (1.8%)	6 (5.2%)	0.020
Familiy Hystory Aortic Dissection	115 (3.0%)	4 (3.5%)	0.8

<sup>1</sup> Median (IQR); n (%)

<sup>2</sup> Wilcoxon rank sum test; Pearson's Chi-squared test; Fisher's exact test

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# Results

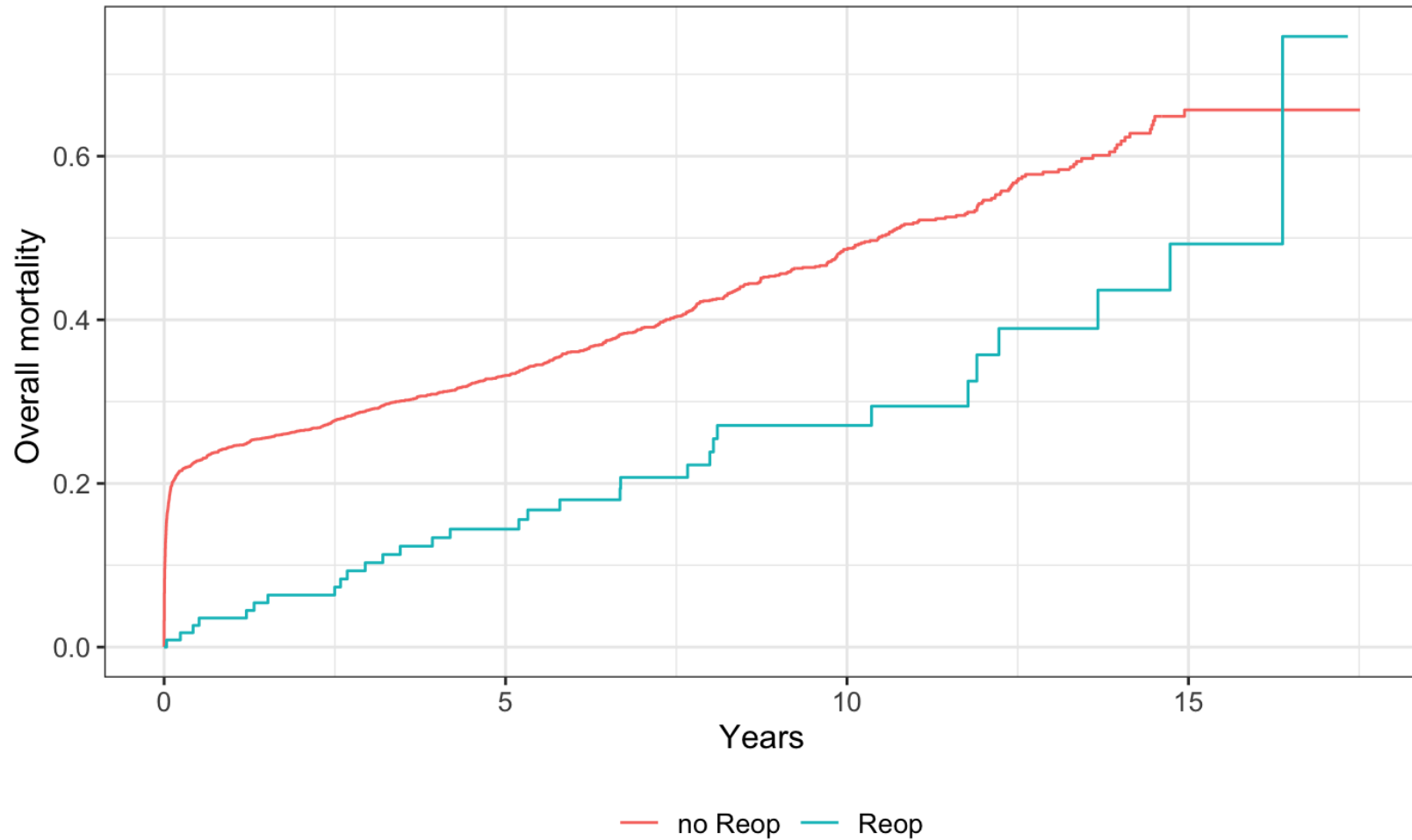
- Patients who had a proximal reoperation were younger (57 years vs 65 years,  $p < 0.01$ ), had higher incidence of Marfan syndrome (5.2% vs 1.8%,  $p = 0.02$ ).
- The median follow-up was 2.2 years (range, 0-17 years).
- Incidence of proximal reoperation at 5, 10 and 15 years was 2.9%, 4.4% and 6.5% respectively.
- Age, extension of the dissection in the left coronary were associated with proximal reoperation.

# Competing Risk analysis – Mortality and Proxymal reoperation



At Risk	3902	1196	375	39
Events	0	1212	1417	1486

# Survival Reop vs no reop



# Conclusion

- **Type A aortic dissection repair was associated with a low proximal reoperation rate.**
- **Age and extension of the dissection were associated with reoperation.**
- **Proxymal reoperation did not increase the risk of survival during the follow up**