

Physician - Aortic (Thoracic) Pathologies and Surgery/Endovascular Interventions

[MSB-14]

Validation of the German Registry for Acute Aortic Dissection Type A Score After Aortic Dissection Surgery

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Cardiovascular Surgery and Interventions 2024;11(Suppl 1):MSB-14

Doi: 10.5606/e-cvsi.2024.msb-14

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Received: September 11, 2024 - Accepted: September 29, 2024

Objective: This study aimed to evaluate how the German Registry of Acute Aortic Dissection Type A (GERAADA) score performs in predicting operative mortality for ATAAD.

Methods: This retrospective study included 86 consecutive patients (60 males, 26 females; mean age: 61.37±12.96 years) who underwent surgical repair for ATAAD between January 2013 and December 2023. Data collection comprised the 11 preoperative main parameters required for calculation of the new GERAADA score: age, sex, previous cardiac surgery, inotropic support at referral, resuscitation before surgery, aortic regurgitation, hemiparesis, intubation/ ventilation at referral, preoperative organ malperfusion, extension of aortic dissection, and location of primary entry site.

Results: Two (2.3%) patients had a history of previous cardiac surgery. The GERAADA scores and postoperative results were compared. The overall 30-day mortality for the entire study cohort was calculated by the GERAADA score to be 22.94% (range, 5.8 to 81%). In comparison, the actual 30-day mortality rate of the study cohort was 32.55%. The GERAADA score showed discriminative power with an area under the curve of 0.867 (95% confidence interval 0.79–0.94).

Conclusion: The GERAADA score prediction of 30-day mortality after surgery is accurate, easily accessible due to its web-based platform, and can be calculated with basic preoperative clinical parameters.

Keywords: Aortic dissection, GERAADA, malperfusion, risk prediction.

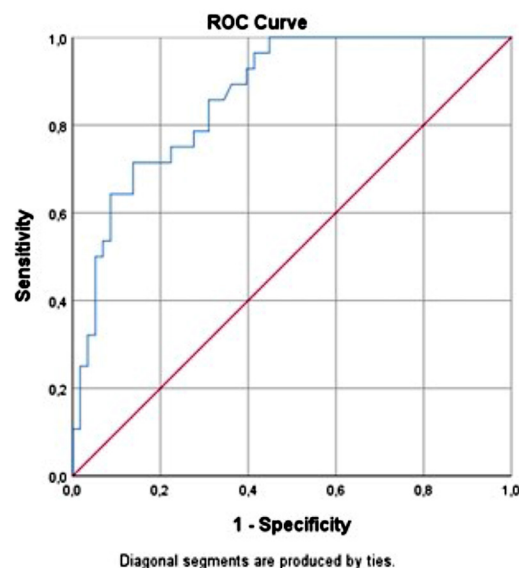


Figure 1.

Table 1. GERAADA score characteristics of all patients

Variables	Number of patients (%)
GERAADA characteristics	
Age (years)	61.37 ± 12.96
Gender (female)	26 (30.2%)
Resuscitation before surgery	4 (4.7%)
Previous cardiac surgery	2 (2.3%)
Intubation/ventilation at referral	11 (12.8%)
Catecholamines at referral	20 (23.3%)
Aortic valve regurgitation	
No	15 (17.4%)
I-II	44 (51.2%)
III-IV	16 (18.6%)
Unknown	11 (12.8%)
Malperfusion (clinical and radiological criteria)	
None	26 (30.2%)
Coronary	7 (8.1%)
Visceral	13 (15.1%)
Peripheral	26 (30.2%)
Unknown or other	23 (26.7%)
Preoperative hemiparesis	11 (12.8%)
Extension of dissection	
Aortic arch	69 (80.2%)
Supra-aortic vessels	17 (19.7%)
Descending or further downstream	72 (83.7%)
Unknown or other	3 (3.5%)
Location of primary entry in aortic arch	8 (9.3%)
Data are presented as mean ± SD or number and percentage.	