Survival after acute type A aortic dissection is mainly determined by cerebral malperfusion

Dr. Thomas Martens, Dr. Isabelle Claus, Dr. Joke Verlinden, Dr. Jens Czapla, Dr. Tine Philipsen, Prof. Dr. Katrien François, Prof. Dr. Thierry Bové

UZ GENT UNIVERSITEIT GENT

Objective

- **Significant mortality (12-25%)**
- **Evolutions in perioperative care and organ preservation techniques**
- **Preoperative malperfusion**
  - Cerebral
  - Limb
  - Cardiac
  - Abdominal
- **Malperfusion first vs. aortic replacement first**

Methods

- **Retrospective single center analysis of patients between 2017 - 2023**
- **Tertiary referral center**
- **Preoperative malperfusion as risk factor**
- **End points**
  - **In-hospital mortality**
  - **Overall mortality**
- **All patients received aortic replacement as per protocol**
- **SPSS 29**

Results - Patients

- **95 patients**
- **60 male (63.2%)**
- **Median age 60 years (min 16, max 86)**

Procedure	N	%
Ascending	15	15.8
Hemi-arch	47	49.5
Complete arch	28	29.5
FET	5	5.3

Results - malperfusion

Type of malperfusion	YES	NO
Any	**34 (35.8%)**	**61 (64.2%)**
Cerebral	17 (17.9%)	78 (82.1%)
Limb	14 (14.7%)	81 (85.3%)
Abdominal	6 (6.3%)	89 (93.7%)
Cardiac	6 (6.3%)	89 (93.7%)

Results - survival

Endpoint	Dead	Alive
In-hospital mortality	19 (20%)	76 (80%)
Overall mortality	23 (24.2%)	72 (75.8%)

Results – risk factor analysis

Malperfusion	P - value
Cerebral	0.002
Limb	0.385
Abdominal	0.833
Cardiac	0.058

Age

Not a risk factor

Additional surgery
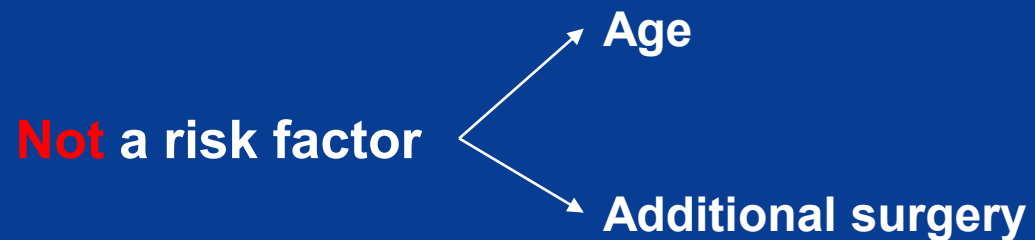
Conclusions

- **More than one-third of patients has preoperative malperfusion**

- **Cerebral malperfusion was associated with mortality**

- **Further research is needed to delineate the impact of other malperfusion on outcome**

Dr. CLAUS Isabelle

Cardiac surgeon

Ghent University Hospital

isabelle.claus@uzgent.be

T +32 9 332 41 11

www.uzgent.be