



Valvuloplasty without prosthetic ring or band support in patients with degenerative mitral regurgitation: long-term results and predictive factors for outcomes

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Objective

To report long-term outcomes of patients undergoing unsupported valvuloplasty for degenerative mitral regurgitation (MR) and to identify predictive factors for outcomes

Methods

- Retrospective cohort 2000-18
- Patients undergoing mitral valve repair for degenerative MR
- Main techniques (no rings or posterior bands supports were used)

Quadrangular resection



Wooler annuloplasty



Results

- 158 patients; 97 (61.4%) male; median age: 64.0y (IQR: 55.7-71.0)
- In-hospital mortality: 2.5%
- Follow-up: 992 patient-years
 - ↳ Maximum: 19.6y; Median: 4.7y (IQR: 1.7-10.5)
- Overall survival (**Fig. 1**)
- Survival free of mitral reoperation (**Fig. 2**)

Fig. 1. Overall survival

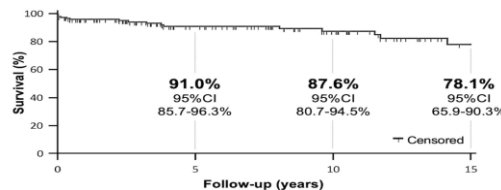
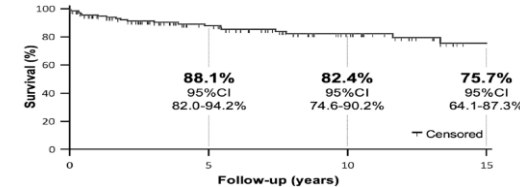
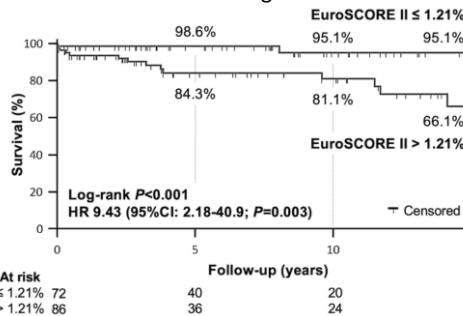


Fig. 2. Survival free of mitral reoperation



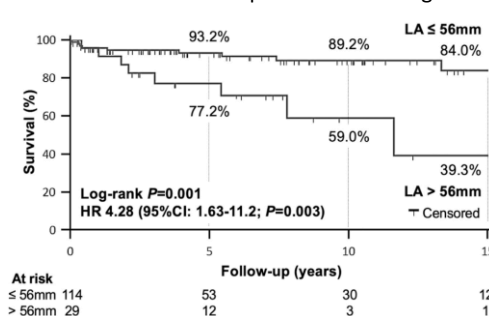
- EuroSCORE II (**Fig. 3**): Risk factor for late death
 - ↳ Multivariate analysis: HR 1.42; $P=0.016$

Fig. 3. Overall survival according to the EuroSCORE II



- LA diameter (**Fig. 4**): Risk factor for late reintervention
 - ↳ Univariate analysis: HR 1.06; $P=0.049$

Fig. 4. Survival free of mitral reoperation according to LA diameter



Conclusions

- Degenerative MR can be successfully treated with repair techniques without annular support, thus avoiding the technical and logistical drawbacks of ring or band implantation while maintaining good long-term results
- EuroSCORE II was a risk factor for late death, and larger LA was associated with late reoperation