

### Palliative Balloon Aortic Valvuloplasty for Inoperable Patients With Severe Aortic Stenosis: 18-Month Follow-up

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**Background:** Surgical valve replacement is the standard treatment for severe aortic stenosis (AS). Transcatheter aortic valve implantation is an alternative therapy for high risk pts but not widely available. Balloon aortic valvuloplasty (BAV) carries lower procedural risk than surgery but has a high restenosis rate. We reinstated a BAV program as palliative treatment for inoperable AS pts. **Methods:** Between May 2008 and November 2009 25 pts underwent BAV. All were inoperable or refused high-risk surgery. Clinical characteristics and pt outcomes were analyzed.

**Results:** Mean age was  $82 \pm 9$  years (range 53-95), 13/25 were female, 10 had previous CABG and 4 were in cardiogenic shock. Logistic Euroscore was  $44 \pm 24$  % (range 4-91). Five underwent concomitant PCI (3 to unprotected LMCA). Aortic counterpulsation was used in 3 and cardiopulmonary bypass in 1 case. Following BAV aortic valve area increased from  $0.75 \pm 0.11$  to  $1.03 \pm 0.12$  cm<sup>2</sup>. During  $227 \pm 188$  days of follow-up 8 (32%) pts died. Two pts who had been in critical condition prior to BAV died in-hospital. The remaining pts improved symptomatically and were discharged. An additional 6 pts died over  $80 \pm 91$  days (range 8-252) of unrelated causes. Echocardiographic follow-up revealed reduction of aortic valve area to  $0.90 \pm 0.14$  cm<sup>2</sup> at 6-months and  $0.84 \pm 0.10$  cm<sup>2</sup> at 1-year. Two pts underwent repeat BAV due to symptomatic restenosis. **Conclusions:** 1) BAV carried low procedural mortality in this population of extremely high-risk elderly pts with severe AS and multiple co-morbidities. 2) A relatively small increase in valve area may translate into significant clinical improvement. 3) Gradual decrease in aortic valve area was observed, but restenosis required repeat intervention only in 2 pts. 4) BAV is a viable palliative therapeutic option in inoperable pts with severe AS.

## Aortic Valve Area (Cm<sup>2</sup>)

