

Balloon aortic valvuloplasty in the transcatheter aortic valve implantation era: A single-center registry

Revista Portuguesa de Cardiologia Volume 36, Issue 4, April 2017, Pages 251-256

Authors

Ana Rita G.Francisco, Miguel Nobre Menezes, Pedro Carrilho Ferreira, Cláudia Jorge, Doroteia Silva, Eduardo Infante de Oliveira, Fausto J.Pinto, Pedro Canas da Silva

Abstract

Introduction

Percutaneous balloon aortic valvuloplasty (BAV) has been limited by the risk of complications and restenosis. However, growing use of transcatheter aortic valve implantation (TAVI) has revived interest in this technique. We analyzed the current indications for BAV and outcomes in a single center.

Methods

Acute results and long-term outcomes were analyzed in a retrospective single-center registry of patients undergoing BAV between January 2013 and January 2016.

Results

Twenty-three patients underwent BAV, 56.5% male, mean age 78 ± 7 years. Indications were severe aortic stenosis and decompensated heart failure (n=5), urgent non-cardiac surgery (n=8), or bridge to definitive treatment (n=10). Peak invasive gradient decreased from a median of 54.0 ± 19.0 mmHg to 28.5 ± 13.8 mmHg ($p=0.002$). Complications included one ischemic stroke, one lower limb ischemia and one femoral pseudoaneurysm requiring surgery. During a mean follow-up of 11 ± 10 months, eight patients underwent TAVI and two underwent surgical aortic valve replacement. Thirteen patients died, nine of non-cardiovascular causes. On Kaplan-Meier analysis mortality was significantly lower among patients undergoing definitive treatment (20.0% vs. 84.6% at two-year follow-up; $p=0.005$).

Conclusion

BAV should be considered for selected patients with temporary contraindications to definitive therapy or as palliative therapy.

Keywords:

Balloon aortic valvuloplasty, Severe aortic stenosis, Transcatheter aortic valve implantation