Aortic valvuloplasty as bridging for TAVI in high-risk patients with Heyde's syndrome: a case report

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Abstract

There is a frequent association between aortic valve stenosis and gastrointestinal bleeding, also known as Heyde's syndrome. In these patients, the aortic valve replacement should be recommended as “gold standard.” In high-surgical-risk patients, the Transcatheter Aortic Valve Implantation (TAVI) is an alternative option. However, the risk of bleeding recurrence, related to double antiplatelet therapy started after TAVI, cannot be excluded especially in the first months. We present a case of a patient with a severe aortic valve stenosis and a history of previously documented angiodysplasia and recurrence of gastrointestinal bleeding initially treated only with balloon aortic valvuloplasty that excluded recurrence of bleeding during the subsequent six months of followup. Therefore, a definite transfemoral Edwards XT valve implantation was planned to be performed in case of recurrence of aortic stenosis.
Three high surgical risk patients with symptomatic aortic stenosis who are at high risk for coronary occlusion during TAVI procedure were enrolled (three female patients). The basic characters shown in Table 1. These three patients have the common feature of low coronary ostium height (< 10 mm) with narrowed aortic sinus (< 30 mm). The effective aortic valve opening area (EOA) was 0.7 cm$^2$, 0.7 cm$^2$ and 0.65 cm$^2$ in each patient with marked leaflet calcification. Aortic valve annular size was 24 mm, 25 mm, 24 mm on CT image.

Table 1. Methods Patient Population

High-risk patients with symptomatic, severe aortic stenosis deemed at increased surgical risk have been consecutively included in a prospective single center registry initiated in July 2007.

Inclusion criteria involved (1) symptomatic, severe aortic stenosis with an echocardiographic mean gradient $>$ 40 mmHg or a calculated aortic valve area $<$ 1 cm$^2$; (2) age $\geq$ 80 years in the presence of a logistic EuroSCORE $>$ 15%. Conservative treatment did however not include balloon aortic valvuloplasty. Also, it was not used as a bridge to TAVI.

Discussion.