REFERENCES


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Dr. Won-Keun Kim holds the position of staff interventional cardiologist of the TAVI program at the Kerckhoff heart center, Bad Nauheim, Germany. Dr Kim was graduated in 1999 from the University of Frankfurt, Germany and has completed numerous residencies and fellowships. He is author and co-author of more than 50 scientific publications and has delivered many lectures at international conferences.
INTRODUCTION

Aortic stenosis (AS) is a major cause of morbidity and mortality among a growing elderly population. Transcatheter aortic valve implantation (TAVI) has rapidly evolved in response to this clinical challenge for the treatment of an increasing number of patients affected by this disease. One of the challenges that clinicians face when treating patients affected by severe AS is avoiding coronary ostia occlusion as a result of a TAVI procedure and preserving coronary access. This particular aspect is even more challenging when the coronary ostia are very close to the aortic annular plane.

CASE STRATEGY & EXECUTION

Coronary clearance of both coronaries but particularly of the Left Coronary Ostium (7 mm from the annular plane) was first assessed during balloon valvuloplasty through the injection of contrast whilst the balloon was fully inflated.

The sinus’ anatomical configuration regardless of the low left coronary ostium of 7.1 mm (Fig. 1, 2 & 3) and a perimeter derived effective diameter of 23.3 mm (Fig. 4), confirmed the choice to implant a medium size ACURATE neo valve. The bioprosthesis was deployed without rapid pacing.

RESULTS

The deployment of the ACURATE neo allowed the upper crown to grasp the native leaflets without any coronary obstruction (Fig 5 & 6). Access to both coronary ostia were preserved for possible future interventions if needed.

Post-procedural echocardiography showed trace PVL, a stable LV ejection fraction of 60 %, an aortic valve area of 1.3 cm² and no complications.

KEY TAKE AWAYS

Patients with a short distance between coronary ostia and annular plane, may benefit from the specific technology of the Symetis ACURATE neo.

Its unique upper crown and X-Shaped design allow implant with the best coronary clearance by capping diseased native leaflets without any ostium occlusion.

PATIENT DATA

- 75 Year-Old Female
- BMI: 39
- Lvef: 60 %
- Mean Gradient: 49 mmHg
- Aortic Valve Area: 0.7 cm²
- Log. Euroscore: 12.46 %
- STS Score: 1.95 %
- Nyha Class III

MEDICAL HISTORY

- No Relevant Cad
- Partial Porcelain Aorta
- Severe Obesity

CASE PRESENTATION

We report the case of a 75 year-old female patient admitted to our hospital for a TAVI procedure with a partial porcelain aorta and a severe obesity.

Baseline measurements at the transthoracic echocardiography demonstrated severe aortic valve stenosis with an aortic valve area of 0.7 cm², a mean gradient of 49 mmHg, and a LV ejection fraction of 60 %.

Angiography showed no relevant coronary artery disease (CAD) and a trace leak.