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Transcatheter aortic valve implantation – new era in treatment of aortic stenosis

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Abstract

Background: The presence of aortic narrowing is common in the elderly and the prognosis is very poor in symptomatic patients. Prior to the era of percutaneous treatment of aortic stenosis, surgical aortic valve replacement (SAVR) was considered the “gold standard” of symptomatic aortic stenosis treatment. However, the records have shown that about 40% of patients at that time were not operated due to their age and their cardiac and non-cardiac comorbidities. The subsequent work was the implantation of aortic valve by transfemoral approach – transcatheter aortic valve implantation (TAVI). Several studies have acknowledged the place of aortic valvuloplasty which has become the reference technique for patients with contraindications or high surgical risk and even recently appeared as at least equivalent to, or even superior to, the surgery in patients at intermediate risk. This development was accompanied by a renewed interest in aortic valvuloplasty, a TAVI that cannot reasonably be executed at first attempt in some patients. In Europe, where this technique was born, the great experience that has been gained has led to a gradual simplification of the procedure. The purpose of this article is to describe the state of the art of TAVI and to discuss its future.

Conclusions: The aortic stenosis disease affects a large scale of people across the globe. The appearance of a new treatment method TAVI opens new era of treatment of this disease. The new TAVI method is a less invasive procedure than an open heart surgery and can be used in almost all the cases of patients with an aortic stenosis.

Key words: aortic stenosis, transcatheter aortic valve implantation, surgical aortic valve replacement.

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