

# Retrospective analysis of patients with severe valvular heart disease requiring treatment at University Hospital "Sveti Duh" in a two-year period

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**Introduction:** The prevalence of degenerative valvular heart disease is rising because of the ageing population, with aortic stenosis being the most common primary valve lesion requiring intervention<sup>1</sup>. The aim of this study was to make a retrospective analysis of patients referred for valvular heart disease (VHD) treatment, whether surgical or transcatheter, and their characteristics.

**Patients and Methods:** In the period of 2 years, from June 2021 to June 2023, medical history of patients hospitalized in Department of Cardiovascular Diseases in University Hospital "Sveti Duh" with the diagnosis of severe VHD was examined.

**Results:** A total number of 67 patients were identified with the diagnosis of severe VHD that required treatment. Among them, 61% were men and 39% were women, with a mean age of 71.9 years. Similar number of patients were referred for elective (51%) and emergent (49%) treatment. The most common VHD was severe degenerative aortic stenosis (67%), followed by mitral regurgitation (18%), aortic regurgitation (4%) and mitral stenosis (1%). There were no patients with primary or isolated tricuspid valve disease, while concomitant tricuspid valve annuloplasty was performed in 5 patients for secondary tricuspid regurgitation. Multiple valve disease with at least two valves requiring intervention was found in 10% of patients. Among patients with severe aortic stenosis, 71% received biological prosthesis, most commonly C-E Permount Magna Ease in the range of 21-27 mm, 20% received or are awaiting transcatheter aortic valve implantation (TAVI) and 9% of patients younger than 65 years of age received mechanical valve. Primary severe mitral regurgitation was the reason for mitral valve repair or replacement (42% mechanical, 33% biological prosthesis) in 16% of patients. Concomitant coronary artery bypass surgery was performed in 25% of patients. 3% of patients have died, while 18% were lost to follow-up.

**Conclusion:** According to our data, the most common VHD requiring treatment was severe aortic stenosis followed by severe mitral regurgitation, which matches the European numbers. TAVI has offered an effective alternative to surgery, but still for older and high surgical risk population.

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## LITERATURE

1. Vahanian A, Beyersdorf F, Praz F, Milojevic M, Baldus S, Bauersachs J, et al; ESC/EACTS Scientific Document Group. 2021 ESC/EACTS Guidelines for the management of valvular heart disease. *Eur Heart J.* 2022 Feb 12;43(7):561-632. <https://doi.org/10.1093/eurheartj/ehab395>