

Percutaneous implantation of a tricuspid valve prosthesis – TricValve - first experience

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Severe tricuspid regurgitation (TR) is often associated with significant morbidity and mortality. It is a relatively common valvular disease, which can be the result of structural abnormalities of any anatomical part of the tricuspid valve. Severe TR is associated with congestive heart failure and hemodynamic impairment, resulting in high mortality when repaired by elective surgery. Given the clinical importance of severe symptomatic TR, significant efforts are being made to establish several effective transcatheter solutions that would avoid the need for high-risk tricuspid valve surgery. If left untreated, patients with severe TR face a poor prognosis. Percutaneous transcatheter therapeutic procedures have expanded the treatment options for patients with heart valve disease. Percutaneous interventional therapy for aortic, mitral, and pulmonary valve diseases is well established; however, catheter-based approaches to tricuspid regurgitation (TR) are still in the early stages of development. Transcatheter tricuspid valve intervention has recently emerged as a viable alternative to surgery for patients with symptomatic severe tricuspid regurgitation. Although usually performed on a compassionate basis, expansion of its use as an elective option in patients with severe atrial functional tricuspid regurgitation is now being investigated. Caval valve implantation (CAVI) can reduce venous regurgitation and improve right heart hemodynamics. TricValve is a transcatheter system of 2 self-expanding valves made of bovine pericardial tissue mounted on nitinol stents intended for placement in the superior and inferior vena cava. Initial studies showed an increase in the quality of life, a decrease in the number of hospitalizations and the absence of signs of perforation or structural damage of valvular stents after 6 months of follow-up in patients with symptomatic functional TR.¹⁻⁴

We are pleased to report the inaugural utilization of the TricValve system in Croatia, as applied to a 66-year-old patient who had experienced recurrent hospital admissions due to severe TR and accompanying symptoms of right-sided heart failure, including edema and ascites. We also aim to highlight the unique aspects and complexities of the nurses role in the implementation of this novel heart failure treatment technology.

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LITERATURE

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