

An alternative approach in transcatheter aortic valve implantation – the role of the nurse

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Aortic stenosis (AS) is the most common acquired valvular disease. Its prevalence is increasing as a result of population aging. When aortic stenosis becomes severe and symptomatic, valve replacement is indicated. Surgical aortic valve replacement is still considered the gold standard, but over the past two decades, minimally invasive transcatheter aortic valve implantation (TAVI) has proven to be an effective alternative to surgery. In most cases, the TAVI procedure can be performed using a retrograde transfemoral approach under local anesthesia. However, if the peripheral arteries are not of sufficient diameter for valve implantation, alternative access routes may be used, such as transaxillary, transcaval, transcarotid, transapical or direct aortic access. Aim is to present the key aspects of the TAVI procedure, including patient preparation, types of prosthetic valves, and potential perioperative complications.

Nurses play an essential role as a member of TAVI team, either as scrub nurses or as those responsible for analgosedation and valve preparation. They also have a significant role in patient evaluation, preparation, and monitoring for complications. In alternative access approaches, the nurse's role varies considerably depending on the type of access, primarily from an organizational standpoint, which makes these procedures more complex. Therefore, nurses must have a thorough understanding of alternative access routes so procedure preparation can be performed in the right way, as well as noticing and reacting to specific complications.

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