

Early rehabilitation of a patient after transcatheter aortic valve implantation: a case report



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Introduction: Transcatheter aortic valve implantation (TAVI) has become an important therapeutic option for elderly patients with severe aortic stenosis who present a high surgical risk for conventional cardiac surgery. Early rehabilitation, particularly respiratory and physiotherapy interventions, is a key component of postoperative care, aiming to reduce complications and accelerate functional recovery. This case report emphasizes the importance of timely initiation of rehabilitation interventions in patients with multiple comorbidities after TAVI.

Case report: We present the case of an 84-year-old female patient with a complex medical history, including previous open-heart surgery via sternotomy, oncological procedures, as well as neurosurgical and orthopedic operations on the spine and hip. During the TAVI procedure, a permanent pacemaker was also implanted. On the very first postoperative day, respiratory interventions were performed, including targeted breathing exercises, stimulation of expectoration, and chest mobilization. Simultaneously, early mobilization in and out of bed was initiated. The presence of mild dizziness and instability required cautious verticalization. On the second day, gradual extension of the walking distance was achieved. After the procedure, limited mobility of the left arm was observed due to the pacemaker implantation. Early rehabilitation after TAVI plays an important role in maintaining cardiorespiratory function, preventing pulmonary and thromboembolic complications, and promoting faster functional recovery. Elderly patients with complex medical histories and multiple comorbidities present a particular challenge due to the increased risk of complications. In this case, timely implementation of respiratory therapy and gradual mobilization enabled safe and progressive adaptation of the patient to postoperative demands, despite instability and movement limitations. This approach demonstrates that individualized and targeted physiotherapy interventions can significantly contribute to more favorable treatment outcomes.

Conclusion: This case highlights the importance of early rehabilitation following TAVI. Timely initiation of respiratory and physiotherapy interventions, even in elderly patients with complex medical histories, is crucial for preventing complications, preserving functional abilities, and achieving successful recovery.

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