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Percutaneous left atrial appendage occlusion: indications, procedure and patient care

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Introduction: Atrial fibrillation increases the risk of thromboembolic stroke, and the left atrial appendage is a common site of thrombus formation. Percutaneous left atrial appendage occlusion (LAAO) may be considered in patients with atrial fibrillation who have contraindications to long-term anticoagulant therapy. The procedure is performed via femoral venous access, followed by transseptal puncture, allowing the delivery system and devices to be introduced into the left atrium. The procedure is monitored in real time using transesophageal echocardiography (TEE) or, in some cases, intracardiac echocardiography (ICE). The aim is to occlude the ostium of the left atrial appendage using a dedicated occlusion device, thereby eliminating communication between the left atrial appendage and the left atrial cavity. The presentation covers the main indications, patient preparation, the course of the procedure, potential complications, and the importance of post-implantation care. Emphasis is placed on the role of nurses in monitoring vital signs, assessing the vascular access site and neurological status, as well as educating patients about prescribed antithrombotic therapy and follow-up examinations.[1] LAAO requires individualized patient selection, a multidisciplinary approach, and structured postprocedural follow-up.

Case report: 76-year-old patient with permanent atrial fibrillation experienced recurrent gastrointestinal bleeding while receiving oral anticoagulant therapy. Due to the increased risk of stroke and difficulties associated with long-term anticoagulant treatment, percutaneous left atrial appendage occlusion (LAAO) was considered. In this illustrative case, the procedure was successfully performed without immediate complications.

Conclusion: Percutaneous left atrial appendage occlusion (LAAO) represents an important alternative for stroke prevention in selected patients with atrial fibrillation who have a high bleeding risk or contraindications to long-term oral anticoagulant therapy. Successful treatment requires a multidisciplinary approach and careful patient monitoring. Nurses play an essential role in patient preparation, early recognition of complications, postprocedural care, and patient education, contributing to patient safety and improved quality of care.

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