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COMPARATIVE ANALYSIS OF CONVENTIONAL AND MODERN TREATMENT METHODS FOR POST-THROMBOTIC SYNDROME

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Abstract: Post-thrombotic syndrome (PTS) is a chronic complication that develops after deep vein thrombosis and is characterized by pain, edema, skin changes, and trophic disorders of the lower extremities. This article presents a comparative analysis of conventional (conservative and pharmacological) and modern (endovascular and minimally invasive) treatment methods for PTS. Current evidence from recent clinical studies and systematic reviews was analyzed to evaluate treatment effectiveness. The findings indicate that while conservative therapy can reduce symptoms in mild to moderate cases, modern endovascular interventions demonstrate superior clinical outcomes in patients with severe post-thrombotic disease.

Keywords: post-thrombotic syndrome, deep vein thrombosis, compression therapy, endovascular treatment, venous stenting

Introduction

Post-thrombotic syndrome (PTS) is one of the most common long-term complications following deep vein thrombosis (DVT), affecting approximately 20–50% of patients. It significantly impairs quality of life and increases healthcare costs. Despite advances in anticoagulation therapy, the management of established PTS remains challenging. Therefore, identifying effective treatment strategies and comparing traditional and modern approaches is of high clinical relevance.

Materials and Methods

A narrative review of peer-reviewed literature published in international medical journals was conducted. Databases including PubMed, Scopus, and Web of Science were searched for studies focusing on conservative management, pharmacological therapy, and endovascular interventions in PTS. Emphasis was placed on randomized controlled trials, systematic reviews, and clinical guidelines.

Results

Conventional treatment strategies, such as elastic compression stockings, physical exercise, and venoactive drugs, remain first-line therapies for symptom control. These approaches are generally safe but demonstrate limited efficacy in advanced PTS. Recent studies report that endovascular procedures, including iliac vein recanalization and venous stent placement, significantly improve venous outflow, reduce edema and pain, and enhance patients' functional status.

Discussion

While conservative therapy plays an essential role in early and moderate PTS, its limitations become evident in severe disease with venous obstruction. Endovascular treatment offers a

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targeted approach to restoring venous patency and addressing the underlying pathophysiology of PTS. However, patient selection, procedural expertise, and long-term follow-up remain critical factors influencing outcomes.

Conclusion

The management of post-thrombotic syndrome should be individualized based on disease severity and patient characteristics. Conservative therapy is appropriate for mild cases, whereas modern endovascular interventions provide superior clinical benefits in severe PTS. Further large-scale prospective studies are needed to establish standardized treatment algorithms.

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