Intermittent Pneumatic Compression For The Treatment of Lower Extremity Arterial Disease: A Systematic Review

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This study aimed to identify the role of intermittent pneumatic compression in treating peripheral arterial disease and to investigate the types of treatment programs that are most effective. Data was sourced from English-language articles, which were identified by a computer search using MEDLINE from 1966 to 2001, followed by extensive bibliography review. Studies were included if they contained pertinent material involving a compression device and arterial flow dynamics in lower limbs.

A total of 26 English-language studies were identified that met the inclusion criteria. The diverse patient criteria and methods used in the studies provided an opportunity to examine the effectiveness of each, but made it difficult to compare one study with another. To assist in focusing on overall trends in improvement, patient type and treatment type disparities must be identified.

In conclusion, it is evident that an intermittent pneumatic compression program appears promising and may be used in patients with severe peripheral arterial disease who are not candidates for revascularization using surgery or percutaneous angioplasty. It is now the goal to establish randomized, prospective, controlled trials to clarify the most beneficial regimen for treating such disease.