INPLASY PROTOCOL

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None declared.

Endovenous Ablation for the treatment of Small Saphenous Varicose Veins: A Systematic Review

Tan, J[1]; Chen, Y[2]; Huang, J[3]; Xu, W[4].

Review question / Objective: **The aim is to summarize the results of existing studies on the endovenous ablation (EVA) for the treatment of small saphenous vein (SSV) varicose veins and to compare its role and efficacy.**
Condition being studied: **5% of varicose veins in the lower extremities are caused by the dysfunction of small saphenous veins (SSV). The endovenous ablation (EVA) for the treatment of SSV varices has become a trend. A study aiming to demonstrate the efficacy of a new technique in treating SSV insufficiency and varicosities is perparing to be conducted by the center where the authors of this review are affiliated with.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 24 March 2022 and was last updated on 24 March 2022 (registration number INPLASY202230134).

INTRODUCTION

Review question / Objective: **The aim is to summarize the results of existing studies on the endovenous ablation (EVA) for the treatment of small saphenous vein (SSV) varicose veins and to compare its role and efficacy.**

Condition being studied: **15% of varicose veins in the lower extremities are caused by the dysfunction of small saphenous veins (SSV). The endovenous ablation (EVA) for the treatment of SSV varices has become a trend. A study aiming to demonstrate the efficacy of a new**

technique in treating SSV insufficiency and varicosities is perparing to be conducted by the center where the authors of this review are affiliated with.

METHODS

Search strategy: Literatures were identified from PubMed, EMBASE and CNKI databases from the period between 1st January 2002 to 1st January 2022. Keywords were selected using medical subject headings (MeSH) for PubMed and the EMTREE terms for EMBASE. The search strategy and study selection process was performed by two authors. The keywords used included 'short saphenous vein', 'small saphenous vein', 'lesser saphenous vein', 'SSV', and 'ablation'. The Boolean operators 'OR' and 'AND' were used to connect terms to each other. The following strategy was used to search in the CNKI database: 'xiaoyinjingmai' AND 'xiaorong'. The following strategy was used to search in the EMBASE database: #1. 'ablation therapy'/exp, #2. 'ablation':ti,ab, #3. 'small saphenous vein':ti,ab, #4. 'short saphenous vein':ti,ab, #5. 'ssv':ti,ab, #6. 'lesser saphenous vein':ti,ab, #7. '#1 OR #2, #8. #3 OR #4 OR #5 OR #6', #9. '#7 AND #8'. The following strategy was used to search in the PubMed database: ((((short saphenous Vein[Title/Abstract]) OR (lesser saphenous Vein[Title/Abstract])) OR (small saphenous Vein[Title/Abstract])) OR (SSV[Title/Abstract])) AND (ablation[Title/Abstract]).

Participant or population: Participants with SSV insufficiency and varicosities.

Intervention: Endovenous ablations such as endovenous laser ablation(EVLA), radiofrequency ablation (RFA), mechanochemical ablation (MOCA).

Comparator: Not applicable.

Study designs to be included: Original studies including randomized control trials(RCTs), observational studies, retrospective studies, and case series.

Eligibility criteria: All manuscripts that included patients treated with EVA such as: EVLA, MOCA, RFA, for small saphenous insufficiency and with the primary outcome measure being described were eligible for inclusion in this review.

Information sources: PubMed, EMBASE and CNKI.

Main outcome(s): SSV anatomical occlusion rate after EVA.

Quality assessment / Risk of bias analysis: The Cochrane Collaboration' s tool was used to evaluate risks of bias of the randomized controlled trial (RCT) articles and the methodological qualities of the non-randomized studies were assessed using the methodological index for non-randomized studies(MINORS) quality score.

Strategy of data synthesis: Not applicable.

Subgroup analysis: Not applicable.

Sensitivity analysis: Not applicable.

Country(ies) involved: China.

Keywords: Endovenous ablation; Small saphenous vein; Endovenous laser ablation; Endovenous microwave ablation; treatment outcome.

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