A systematic review of the efficacy and tolerability of hydroxyethylrutosides for improvement of the signs and symptoms of chronic venous insufficiency.

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Abstract

WHAT IS KNOWN AND OBJECTIVE: Rutoside (rutin; quercetin rutinoside) is a glycoside found in various plant products, including apples, citrus fruits and cranberries. Hydroxyethylrutosides (HR) are semisynthetic derivatives sold as standardized products for the treatment of chronic venous insufficiency (CVI). Commercially available products include Relvène® (France), Venuron® (Switzerland) and Paroven® (United Kingdom). However, the evidence for their efficacy is inconclusive. The aim of this systematic review was to evaluate the evidence of efficacy and tolerability of hydroxyethylrutosides for CVI.

METHODS: We searched electronic databases such as the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE and CINAHL, and publisher databases, conference proceedings and references lists for randomized controlled trials published in English and non-English languages. We also performed hand searches for additional trials. We included all trials that assessed the effectiveness of HR for CVI. Comparisons include HR (with or without compression bandaging) vs. placebo (with or without compression bandaging) or HR vs. compression bandaging alone. Two review authors independently selected studies, extracted data and assessed risks of bias in the included trials.

RESULTS AND DISCUSSION: The search identified 1474 records. Only 15 trials involving 1643 participants met our inclusion criteria. A meta-analysis based on similar studies that compared HR with placebo showed that HR significantly reduced symptoms of pain (SMD -1.07, 95% CI -1.44 to -0.70), symptoms of heavy legs (OR 0.50; 95% CI 0.28-0.91) and cramps (SMD -1.07, 95% CI -1.45 to -0.69). No serious adverse effect due to HR was reported.

WHAT IS NEW AND CONCLUSION: The findings showed that HR produced modest improvements in several symptoms of CVI. However, all the included trials were of limited quality, and therefore, better-quality trials are still required to draw firm conclusions on the usefulness of HR for CVI.

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KEYWORDS: chronic venous insufficiency; flavonoids; hydroxyethylrutosides; meta-analysis; oedema; pain

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