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# Hyperbaric oxygen therapy in patients suffering from wounds in calciphylaxis: a narrative review

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## Abstract

**Background:** Calcific uremic arteriopathy (calciphylaxis) is a rare and highly lethal vascular disease. Vascular calcification with calcium depositions lead to ischemic ulcers associated with gangrene, severe pain and poor healing. Although hyperbaric oxygen (HBO2) therapy has been used in the treatment of calciphylaxis, evidence of its effectiveness is limited.

**Objective:** To determine whether HBO2 therapy has a beneficial effect in the healing of calciphylaxis ulcers.

**Methods:** A search was made in PubMed using a comprehensive strategy to identify the effect of HBO2 on calciphylaxis wounds. Included in the analysis were studies published up to October 2018 involving a minimum of four patients receiving HBO2 therapy.

**Results:** Ten retrospective (case) series were included. This review included a total of 131 patients with calciphylaxis who were treated with HBO2 therapy; of these, 58 patients (45%) had full response on HBO2 with complete wound closure. Regarding

partial response, 17 of the patients (13%) experienced substantial wound improvement on different wound scale scores.

**Conclusion:** Patients with calcific uremic arteriolopathy can benefit from HBO<sub>2</sub>. More research is needed using standardized wound scores. Outcomes related to quality of life and pain relief should also be assessed.

**Keywords:** calciphylaxis; hyperbaric oxygen therapy; review article.

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