

## **[Arterial occlusive disease: Pharmacological therapy and ozone therapy]**

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### Abstract

Background: The therapeutic effects of intravenous ozone in the treatment of arterial occlusive disease have been known for some time. Various authors have shown how this treatment improves the transport and release of oxygen to tissues. Methods: Among the main mechanisms underlying this result, the most important is increased 2,3 diphosphoglycerate (2,3 DPG). This enzyme results in a diminished affinity of the hemoglobin for oxygen, thereby enabling the latter's increased release to the tissues. Results: We compared the results in a sample of patients receiving conventional pharmacological therapy and a group of patients receiving ozone therapy according to our usual protocols. All the patients were treated using a major own-blood transfusion. The dose used for every transfusion was 5000 ng ozone added to 200 cc uncoagulated blood with citrate. Applications were continued twice weekly for a total of 5 sessions. A total of 50 pharmacologically-treated patients were included at Fontaine's second stage. Another group of 50 patients commenced ozone treatment at the same time. Patients receiving pharmacological treatment presented improved symptoms in 50% of cases. Those who were treated with ozone treatment showed improved symptoms in 86% of cases. Changes in 2,3 DPG evaluated before and after treatment were correlated with the improved symptoms achieved. In general low indices of 2,3 DPG corresponded to enhanced levels after treatment and improved symptoms. However, significant improvements were noted even in the event of high enzyme levels before treatment. Conclusions: The predictive criterion for cases with low indices of 2,3 DPG at the start of treatment is indicative and not absolute. Ozone activity induces improvements that exceed all expectations when the patients to be treated present a metabolic reserve requiring stimulation and strengthening.