

## VENOUS & ARTERIAL THROMBOSIS LITERATURE

J Perinatol. 2006 Dec;26(12):777-9.

### **Hyperbaric oxygen in treatment of neonatal arterial thromboembolism of lower extremities.**

**Wiebers J, Purdy I, Lieber M, Milisavljevic V.**

Arterial thromboembolism (TE) in the absence of current or recent history of a central catheter is a rare condition in newborn period. We report a case of severe lower extremities arterial TE of unclear etiology in a full-term neonate. By adding hyperbaric oxygenation to thrombolytic and antithrombotic therapy, we achieved improved perfusion of the upper leg tissues, preserving the knee and enabling below-the-knee amputation.

Wien Klin Wochenschr. 2004 Feb 28;116(4):140-2.

### **Hyperbaric oxygenation combined with streptokinase for treatment of arterial thromboembolism of the lower leg.**

**Mihaljević S, Mihaljević L, Majerić-Kogler V, Oremus K.**

Thromboembolic occlusion of peripheral arteries is a common problem in patients referred to vascular surgery departments. Standard treatments include catheter aspiration techniques, use of fibrinolytic agents and surgical thrombendarterectomy. Recent reports have described the use of hyperbaric oxygen therapy in patients with limb ischemia, yet their main focus has been on patients with chronic disorders. We present the case of a 74-year-old woman with atrial fibrillation and acute thromboembolic occlusion of the posterior tibial artery. The patient presented with severe pain in the right calf, unresponsive to non-opioid parenteral analgesia and accompanied by coldness, numbness and partial motor palsy of the right foot. After 60 minutes of oxygenation in a hyperbaric chamber with a pressure of 2.2 bar, the pain receded, although without signs of restored blood flow in the occluded artery. After fibrinolytic therapy with streptokinase, patency of the posterior tibial artery was verified by return of palpable pulsations and color Doppler ultrasonography. By combining hyperbaric oxygenation and streptokinase in the treatment of lower-leg arterial thromboembolism we achieved regression of ischemic pain, prolongation of the survival time of tissues compromised by ischemia and resolved the cause of the ischemia. We believe the use of this therapeutic strategy in selected cases of peripheral arterial thromboembolism is justified.

Kardiologija. 1989 Apr;29(4):86-8.

### **Effect of hyperbaric oxygenation on myocardial blood supply in patients with chronic ischemia of the lower extremities in the preoperative period**

**Belov KV, Spasskiĭ AA, Levshunov SP, Aliab'ev VS.**

ECG and central hemodynamic parameters were examined in 24 patients with chronic ischemia of lower extremities under the effect of a course of hyperbaric oxygenation, and were shown to be improved in 67% of the cases. Deteriorating ECG pattern in combination with unfavorable central hemodynamic changes, seen in 29%, suggest that electrocardiographic monitoring is essential during the hyperbaric oxygenation course, so that treatment regimen could be timely adjusted.