

**HYPERBARIC OXYGENATION IN TREATMENT OF DIABETIC FOOT LESIONS**

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**Aim:** The aim of the study was to evaluate effects of HBO in treatment of diabetic foot lesion as well as to try to make own protocol for such treatment. Hyperbaric oxygenation (HBO) is breathing of 100% oxygen under environmental pressure greater than 1.0 ATA.

**Material and methods:** We evaluated 40, insulin dependent, patients with diabetic foot lesions (Wagner 3 and 4) sent from other medical facilities. All patients underwent examination and laboratory tests to estimate fitness for HBO. Measurement by the means of transcutaneous oxymetry (TCPO<sub>2</sub>) and laser doppler flowmetry (LDF) was performed prior HBO, as well as after 10 and 20 procedures. All patients underwent treatment in monoplace hyperbaric chambers. Combination of antibiotics was given according to antibiogram for 7 days and wounds were dressed on the second day with wet dressing. Weight-bearing was not allowed.

**Results:** HBO elevates values of TCPO<sub>2</sub> and LDF, reduces edema, introduced with antibiotics more rapidly controls infections and promotes healing. And we can say, decreases rate of amputations.

**Discussion:** Although our results are promising, in order to properly evaluate results of HBO we need well designed, randomized, double-blind, controlled studies. But, at this moment, we decide to accept such protocol in treatment of diabetic foot lesions.

**Key words:** Hyperbaric oxygenation, diabetic foot lesion.