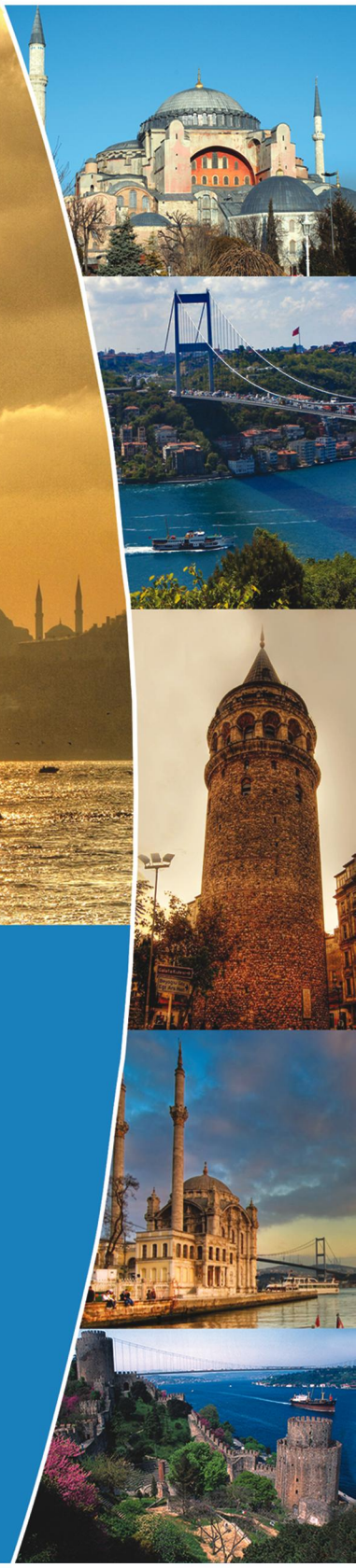

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USE OF HYPERBARIC OXYGEN THERAPY IN THE TREATMENT OF ISCHEMIC WOUNDS IN TURKEY: A MULTI-CENTER CASE SERIES OF 652 PATIENTS

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Aims: Ischemic wounds are recognized as a significant risk factor for lower extremity amputations. Hyperbaric oxygen therapy (HBOT) has been shown to be an efficient adjunctive modality in the management of ischemic wounds. HBOT is used in Turkey for more than 20 years and The Social Security Organization of Turkey covers HBOT in certain indications including ischemic wounds.

Methods: An online questionnaire including demographic and clinical characteristics, history findings, treatment details and outcome results was sent to all HBOT centers in Turkey. Twelve HBOT centers replied and submitted their patient data accordingly. Data were analyzed in SPSS 11.0 for Windows.

Results: A total of 652 patients were analyzed. Of these 538 (82.5%) were male and 114 (17.5%) were female. Mean age was 56.36 (± 15.97). For those patients with available data, 28.5% were classified as Fontaine stage I, 12.2% as stage II, 39.1% as stage III and 20.2% were classified as Fontaine stage IV. The most common site of ulceration was the toes (65.7%). 74.9% of the patients had at least one absent pulse in the lower extremity and similarly 47.7% of the patients had at least one lower extremity artery with total obstruction in Doppler ultrasound. Mean number of HBO sessions was 33.05 (±27.80). Overall, the healing and amputation rates were 51.7% and 0%, respectively, for Fontaine stage I and II patients and 36.9% and 15.1%, respectively, for Fontaine stage III and IV patients.

Conclusions: Our data has shown that ischemic wounds frequently fail to heal. Higher stages of the Fontaine classification were associated with a progressive gradual increase in amputation rates and with a decrease in healing rates. Adjunctive treatment modalities such as HBO should be considered in the management of selected ischemic wounds to increase the success rates.

Keywords: Peripheral artery disease, chronic wound