

EUBS
2010













36th ANNUAL MEETING OF THE EUROPEAN UNDERWATER AND BAROMEDICAL SOCIETY

INTERNATIONAL CONFERENCE
ON DIVING AND HYPERBARIC MEDICINE

14-18 September 2010
Istanbul, TURKEY

Abstract and Conference Book

EUBS

European Underwater and Baromedical Society

OP-27

USE OF HYPERBARIC OXYGEN THERAPY IN THE TREATMENT OF CENTRAL RETINAL ARTERY OCCLUSION (CRAO) IN TURKEY: 331 CASES

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Aims: Central retinal artery occlusion (CRAO) is an emergency situation of ophthalmology which can cause permanent loss of vision. CRAO is accepted as an absolute indication for Hyperbaric Oxygen Therapy (HBO) by Turkish Ministry of Health. HBO is used in Turkey for more than 20 years and Social Security Institution of Turkey reimburses HBO in certain indications including CRAO. This study aimed to review the patients with CRAO who treated with HBO in Turkey.

Methods: All HBO centers in Turkey were invited to participate in this study. Participating centers were required to fill web-based online form for each patient to collect data regarding; patient characteristics, etiological details, treatments and outcome. Eleven HBO centers agreed to participate in this study.

Results: A total of 331 patients (184 male and 147 female) were included. The mean age of patients was 55,2±16,8. Central retinal artery was the most affected vessel (69%) and it was followed by retinal branch arteries (29%). In the etiology, arterial hypertension was the leading cause of occlusion. Before HBO, 12 patients had surgery (anterior chamber paracentesis), 60 patients had been applied ocular massages, and 112 patients had used aspirin and ocular hypotensive drugs. Mean interval time between occlusion and HBO was 61,9 hours (min: 3, max: 720 hrs). After the first HBO treatment, none patient was completely healed, 228 patients (76%) partially healed and 71 patients (24%) were unchanged. The average number of HBO sessions was 12,87±8,11 (min:1, max: 60 sessions). Forty-six (18%) patients were completely healed, 202 patients (66%) were partially healed and 58 patients (19%) were not healed after completing treatments.

CONCLUSION: The addition of HBO to standard treatment may increase the rate of healing in patients with CRAO.

Keywords: hyperbaric oxygen, central retinal artery occlusion