EUBS 2022 PRAGUE

46th Annual Scientific Meeting

ABSTRACT & CONFERENCE BOOK

31.08. - 03.09.2022
Prague, Czech Republic



Editors:
Michal Hajek
Lukas Hajek
Lukas Robenek
Peter Germonpre

EUBS European Underwater and Baromedical Society

O-27

USE OF HYPERBARIC OXYGEN THERAPY IN INFANTS: EXPERIENCE OF TWO TERTIARY HEALTH CARE CENTERS

Bengusu Mirasoglu[1], Kubra Ozgok Kangal[2]

[1] Istanbul Faculty of Medicine, Istanbul, Turkey
[2] Gulhane Research and Training Hospital, Turkey

Introduction
Use of Hyperbaric Oxygen Therapy (HBOT) for approved indications in pediatric age group has been increasing recently but use in infants remains to be limited. Reports regarding HBOT use in this patient population is scarce except a few encouraging case reports. Possible technical difficulties and complications, together with lack of scientific support may be causing hesitations in referrals. We aimed to share our experiences regarding treating patients younger than one year of age (infants) with HBOT.

Materials and Methods
Infants who received HBOT in Istanbul Faculty of Medicine and Gulhane Research and Training Hospital were analysed retrospectively. Patient files were reviewed and demographic and medical data were documented. The patients were classified into two major groups with regard to conditions they were treated for: carbonmonoxide (CO) intoxication and wound related conditions. HBOT was administered in two multiplace and one monoplace chambers. All patients were checked for possible complications after each session.

Results
Fifty four infants underwent HBOT in two institutions. Median age of the patients was 3.5 months and 15 patients were younger than one month of age. Total number of sessions applied was 275. Of these, 209 sessions were in multiplace chambers. Thirty two infants underwent a total of 36 sessions for CO intoxication. Majority of patients (75.1%) had mild or moderate CO intoxication. All patients except one who was intubated at referral recovered with one HBOT sessions. Twenty two infants underwent HBOT for wound related conditions. Acute peripheral ischemia was the most common (68.7%) condition that was treated. Median number of sessions applied for wound related conditions was 10.5 (2-48). Complete healing or improvement was observed in 77.3% of the patients. No HBOT related complication was encountered.

Discussion
HBOT can be a beneficial treatment option in infants however administration of it in infants may be challenging in some aspects compared to adult treatment. Yet, HBOT seems to be safe and well-tolerated in the infant patients when the operation is carefully planned ahead, necessary measures are taken and teams work in coordination.