Oral Communication

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Hyperbaric Oxygen Therapy in Improving Neurological and Functional Outcome of Persons With Severe Hypoxic Ischemic Encephalopathy

Topic: Miscellaneous

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BACKGROUND

The prevalence of severe Hypoxic Ischemic Encephalopathy (HIE) is increasing and their prognosis for meaningful recovery is poor. Adjunctive Hyperbaric Oxygen therapy (HBOT) has been used in patients with severe disorder of consciousness but studies to evaluate benefits are scarce.

METHODS

Evaluate the changes in level of consciousness, neurological status and functional status in patients with severe HIE who underwent HBOT.

METHODS

Retrospective study involving 54 patients with severe HIE. Validated outcome scales (Coma Recovery Scale-Revised for level of consciousness, Glasgow Coma Scale for neurological status, and Glasgow Outcome Scale for functional status) prior to starting HBOT and at discharge were evaluated. Clinical Data, Duration of injury, Number of HBOT sessions and medical complications attributed to HBOT were analyzed. Wilcoxon sign ranked test was used for statistical analysis.

RESULTS

Fifty two percent patients had change in level of consciousness with 13% achieving consciousness. Fifty percent patients had improvement in neurologic Status. Thirty five percent of patients showed functional improvement with 13% patients achieving independence for ADLs at discharge. Higher initial GOS score significantly increased the odds of having higher GCS and level of consciousness at discharge. Younger age, female gender, HBOT session started within a month of injury and higher GOS score significantly increased the odds of functional recovery at discharge. No major complications were attributed to HBOT.

CONCLUSION

There is scope for improvement in consciousness, neurological status, and functional status after severe HIE. Hyperbaric Oxygen therapy is safe and well tolerated by persons with severe HIE.

Statement of Disclosures

None

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