

OBJECTIVES. Primary outcome: to compare the outcomes at discharge and at 90 days of patients admitted to our ICU over two periods of time (2018 and pre-2018). Secondary outcomes: 1. To discover whether global time (minutes from the beginning of the symptoms until the end of the procedure) is shorter. 2. To analyse whether any differences exist in the use of vasoactive drugs (anti-hypertensive therapy / amines).

METHODS. Retrospective study. Review of medical records. Patients with AIS admitted to our ICU for endovascular treatment are divided into 2 groups: G1 (year 2018); G2 (years 2015-2017). The recorded variables include (among others): demographic data, cardiovascular risk factors, previous treatment with antiplatelet agents/oral anticoagulants, outcome at discharge and after 3 months using modified Rankin Scale (mRS-d, mRS-3).

Mann-Whitney *U*-test (for independent samples) and Wilcoxon test (for related samples) were used to compare medians. The Student test was used to compare differences in time between the two groups. Pearson's chi-square test and Fisher's exact test were used to analyse differences in vasoactive drug use.

RESULTS. A total of 103 patients were included: 63 in G1 and 40 in G2. The demographic data, risk factors and NIHSS on admission did not differ, despite the difference in sample sizes.

Primary outcome: there were no statistically significant differences in mRS-d between G1 and G2, and 50% of patients have mRS-3 \leq 2. Nonetheless, though the difference is not statistically significant, outcome at discharge is better in G1, given that 25% of the patients have mRS-d \leq 1.

Outcome after three months was compared with that at discharge in each group separately (excluding patients with mRS-d=6, as improving is impossible for them). We found a statistically significant improvement in both groups, which was higher in G1. 50% of patients in G1 have mRS-3 \leq 1, while 50% of those in G2 achieve mRS-3 \leq 2. Furthermore, 25% of patients in G1 have mRS-3 = 0, and this is not achieved in G2.

Secondary outcomes: 1. Time is shorter, but the difference is not statistically significant. There may be external factors which bias this parameter. 2. We have used fewer vasoactive drugs in G1 than in G2, and the difference is statistically significant.

CONCLUSION. CONCLUSIONS

1.- The introduction of new recommendations for AIS endovascular treatment has improved the outcome of our patients. 2.- Thanks to early endovascular therapy, as a first line treatment for AIS, 25% of patients have no neurological sequelae. 3.- Although the time period is shorter, we have not found any statistically significant differences, probably due to several external factors. 4.-The use of vasoactive drugs has decreased upon the introduction of the new guidelines

REFERENCE(S)

- 2018 guidelines for the early management of patients with acute ischemic stroke. Powers et al. Stroke 2018:49
- No grants have been received

000862

Hyperoxia in Traumatic Brain Injury. Data from Center-TBI

A. Mazeraud¹, C. Robba², C. Iaquaniello³, E. Banzato³, E. Wieggers⁴, A. Vargiolu⁵, G. Citerio⁶

¹Neurointensive Care, CHSA, Paris, France; ²Department of anaesthesia and intensive care, IRCCS AOU San Martino, Genova, Italy; ³School of medicine and surgery, University of Milano-Bicocca, Milano, Italy; ⁴Dept. of public health, Erasmus University Medical Center, Rotterdam, Netherlands; ⁵Neurointensive care, department of emergency and intensive care, Ospedale San Gerardo di Monza, Monza, Italy; ⁶School of medicine and surgery, University of Milano-Bicocca, Monza, Italy

Correspondence: A. Mazeraud

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INTRODUCTION. Controversial evidences exist concerning the effect of hyperoxia on outcome after traumatic brain injury in ICU.

OBJECTIVES. We aimed at evaluating the effect of transient and prolonged hyperoxia on outcome.

METHODS. The CENTER-TBI study is a prospective observational longitudinal cohort study including patients with TBI from centers across Europe. Data were extracted from the CENTER-TBI database v1.0 with Neurobot v2.6. We focused on patients receiving mechanical ventilation in ICU > 24 hours. We analyzed previously published predictors of outcome: age, preinjury state, ISS score, Glasgow motor score, pupils' examination, imaging results and secondary insults such as hypoxia, hypotension, unwanted hypocapnia, seizures, highest blood glucose level (BGL) at day 1, lowest hemoglobin level at day 1, raised ICP episode and length of stay.

Transient hyperoxia was defined as a single blood gas analysis (BGA) PaO₂ >100 (THMild) mmHg and >300 mmHg (THsevere) and prolonged hyperoxia as the daily lowest BGA PaO₂ >100 mmHg (PHmild) and 300 mmHg (PHsevere). The main outcome was a negative outcome at 6 months (Glasgow outcome scale extended, GOSe \leq 4). Chi square tests and fisher tests were used to compare variables between good and bad outcome groups.

RESULTS. 4509 patients were included in the CENTER-TBI study, 2138 were admitted in the ICU and we focused on the 1099 receiving MV for more than 24 hours. 771/1099 (70.2%) patients were exposed at least once to PHmild whereas 2487 episodes of PHmild occurred during the entire stay, 908 (36.5%) of which during the first 48 hours. Only 26 episodes of PHsevere occurred in 23/1099 (2.1%) patients, 18 of which in the first 48 hours. 112/214 patients that died before day 4 had an episode of PHmild vs. 289/885 (p<.0001).

1061/1099 patients were exposed to THMild whereas 6373 episodes of THMild occurred, 1808 (26.3%) of which during the first 48 hours. 213/1099 patients presented 253 episodes of THsevere, 168(66.8%) of which in the first 48 hours. 200/214(93.4) patients that died before day 4 had an episode of THMild vs. 847/884(95.8) and 40/214 vs 136/884 (p=.280) for THsevere.

THMild or THsevere were not associated with GOSe in univariate analysis (p=0.259, p=.566) nor PHmild or PHsevere (p=.258, p=.056)

CONCLUSION. Hyperoxia is frequent in ICU after TBI but it is not associated with worse outcome.

REFERENCE(S)

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000870

Association of Hospital-level Intracranial Pressure Monitoring Utilization for Severe Traumatic Brain Injury with Clinical Outcome: a post hoc analysis of a multicenter, prospective registry

T. Okazaki¹, K. Kenya², K. Yasuhiro²

¹Emergency Medical Center, Kagawa University Hospital, Miki, Japan;

²Emergency medical center, Kagawa University Hospital, Miki, Japan

Correspondence: T. Okazaki

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INTRODUCTION. Severe traumatic brain injury management guidelines recommend intracranial pressure monitoring. However, the use of hospital-level intracranial pressure monitoring varies greatly, and the association between hospital-level intracranial pressure monitoring utilization and clinical outcomes remains unknown.

OBJECTIVES. To examine whether severe traumatic brain injury patients treated at hospitals with higher intracranial pressure monitoring utilization rates have better functional outcomes, based on data from the Japan Neurotrauma Data Bank Project 2015.

METHODS. In this post hoc analysis of a nationwide prospective registry of patients admitted between April 2015 and March 2017,