

Assessment of factors contributing to the emergence of secondary post-traumatic stress disorders in the emergency resuscitation room: Preliminary results from a monocentric prospective study

Author

Aurore Ancion – Coma Science Group, GIGA-Consciousness, University of Liège, Liège, Belgium; Emergency Department, University Hospital of Liège, Liège, Belgium

Pauline Fritz – Coma Science Group, GIGA-Consciousness, University of Liège, Liège, Belgium; Centre du Cerveau², University Hospital of Liège, Liège, Belgium

Anais Rourre – Coma Science Group, GIGA-Consciousness, University of Liège, Liège, Belgium

Nicolas Lejeune – Coma Science Group, GIGA-Consciousness, University of Liège, Liège, Belgium; Centre du Cerveau², University Hospital of Liège, Liège, Belgium; William Lennox Neurological Hospital, Ottignies-Louvain-la-Neuve, Belgium

Olivia Gosseries – Coma Science Group, GIGA-Consciousness, University of Liège, Liège, Belgium; Centre du Cerveau², University Hospital of Liège, Liège, Belgium

Alexandre Ghuysen – Emergency Department, University Hospital of Liège, Liège, Belgium

Charlotte Martial – Coma Science Group, GIGA-Consciousness, University of Liège, Liège, Belgium; Centre du Cerveau², University Hospital of Liège, Liège, Belgium

Citation

Ancion, A., Fritz, P., Rourre, A., Lejeune, N., Gosseries, O., Ghuysen, A., Martial, C. Assessment of factors contributing to the emergence of secondary post-traumatic stress disorders in the emergency resuscitation room: Preliminary results from a monocentric prospective study.

Introduction

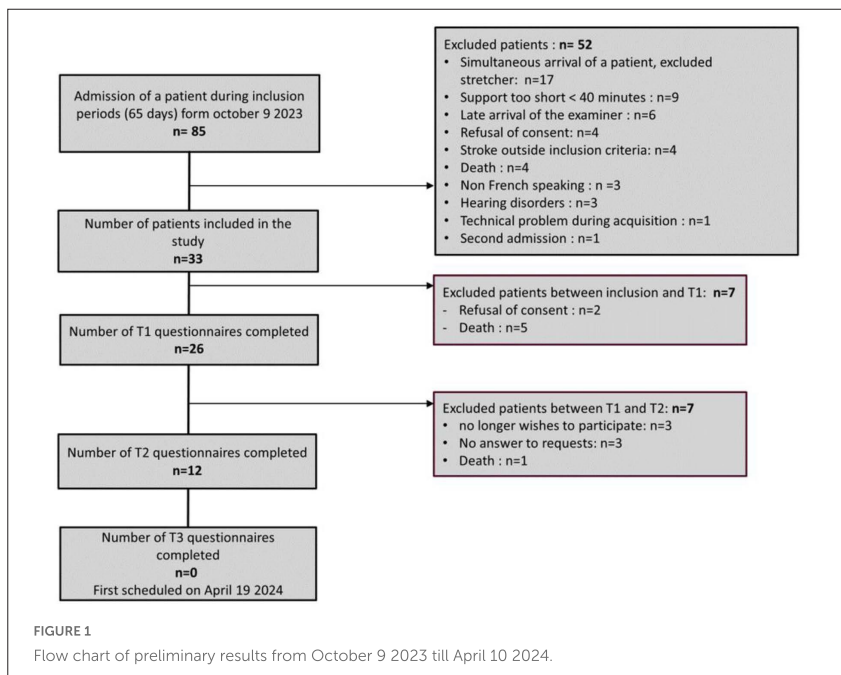
Up to 25% of patients admitted for life-threatening emergencies might develop post-traumatic stress disorder (PTSD), later contributing to poorer state of health^{1,2,3}. Key factors seem to be the perception of life-threatening danger during care and the level of compassion exuded by healthcare staff, but the precise and extensive study of triggers remains poorly investigated^{2,3,4}. Therefore, this study aims to prospectively investigate the prevalence of PTSD among patients admitted in our emergency resuscitation room (RR) as well as the potential associated risk factors.

Methods

Two hundred patients admitted in our emergency RR will be included, starting from October 2023. Here, we report the preliminary results of 12 patients. We record real-time medical informations and medications, and conduct audio-visual recordings to assess healthcare providers' communication, attention to pain, and the care environment. Three follow-up interviews are conducted: within 3 days after RR discharge or awakening (T1), as well as at 2 (T2) and 6 (T3) months post-admission. During the first one, the Consultation and Relational Empathy (CARE) measure³ and the Emergency Department (ED) threat perceptions scale² are administrated. During the following, we assess PTSD using the PTSD Checklist for DMS-5 (PCL-5), depression using the Patient Health Questionnaire-9 (PHQ-9) and anxiety using the Hamilton Anxiety Rating Scale (HAM-A).

Preliminary Results

Out of the 12 patients that we interviewed at 2-month, one (8%) reported a PTSD as identified by the PCL-5 Fig 1. This patient was also the only one for



which we identified a severe depression using the PHQ-9 and a moderate to severe anxiety score using the HAM-A. Importantly, this patient reported a particularly high score on the ED threat perceptions scale. Using univariate statistics, we observed significant differences between the score of this patient and the group of patients who did not reach the cut-off score of the PCL-5 at the HAM-A ($p < 0.001$) and at the PHQ-9 ($p = 0.001$). We did not observe significant differences regarding the CARE ($p = 0.313$) and the ED threat perceptions scale ($p = 0.057$, even if approaching significance). Variables that differ significantly in univariate analyses will be included in multivariate binary logistic regression analyses to identify those that remain significantly associated with the emergence of PTSD.

Discussion

We expect to confirm the relationship between secondary PTSD following RR stay with threat and compassion perceptions previously described in literature^{2,3,4}. We aim to identify specific risk factors in patient care which condition the emergence of PTSD using a standardized analysis of audio-visual recordings. We anticipate potential association with the proficiency level in therapeutic communication. For the patient mentioned in this small sample, we could consider these high scores at HAM-A and PHQ-9 as confounding factors.

Conclusion

This study may ultimately contribute to reducing PTSD after RR care by addressing factors that can trigger it.

References

[1] Kovalsky D, Roberts MB, Freeze B, Moss J, Jones CW, Kilgannon H, Edmondson DE, Trzeciak S, Fuller BM, Roberts BW. Posttraumatic stress disorder symptoms after respiratory and cardiovascular emergencies predict risk of hospital readmission: A prospective cohort study. *Acad Emerg Med*. 2022 May;29(5):598-605. doi: 10.1111/acem.14438. Epub 2022 Feb 10. PMID: 35064719.

[2] Cornelius T, Agarwal S, Garcia O, Chaplin W, Edmondson D, Chang BP. Development and Validation of a Measure to Assess Patients' Threat Perceptions in the Emergency Department. *Acad Emerg Med*. 2018 Oct;25(10):1098-1106. doi: 10.1111/acem.13513. PMID: 29972892; PMCID: PMC6185758.

[3] Moss J, Roberts MB, Shea L, Jones CW, Kilgannon H, Edmondson DE, Trzeciak S, Roberts BW. Healthcare provider compassion is associated with lower PTSD symptoms among patients with life-threatening medical emergencies: a prospective cohort study. *Intensive Care Med*. 2019 Jun;45(6):815-822. doi: 10.1007/s00134-019-05601-5. Epub 2019 Mar 25. PMID: 30911803.

[4] Moss J, Roberts MB, Shea L, Jones CW, Kilgannon H, Edmondson DE, Trzeciak S, Roberts BW. Association Between Perceived Threat and the Development of Posttraumatic Stress Disorder Symptoms in Patients With Life-threatening Medical Emergencies. *Acad Emerg Med*. 2020 Feb;27(2):109-116. doi: 10.1111/acem.13877. Epub 2019 Nov 24. PMID: 31650652.