ORAL PRESENTATIONS

[ID-O#070] Indications and complications of intubation in GHB overdoses in a Toxicology Unit

Ingrid Berling[a], Kylie McArdle[b], Caitlyn Lovett[b], Michael A Downes[a] and Geoff Isbister[a]
[a]University of Newcastle; [b]Calvary Mater Newcastle

Background: Gamma-Hydroxybutyrate (GHB) is a central nervous system depressant associated with recreational use, with rising hospital presentations in Australia(1). In overdose it can lead to severe respiratory depression, necessitating intubation and intensive care admission. This study aims to analyse the clinical reasoning for intubation of GHB overdose cases, associated complications such as aspiration, and length of stay (LOS).

Method: A retrospective review of GHB overdose cases between 2000 to March 2024 in a single toxicology centre was conducted. Data were collected on patient demographics, clinical presentation, intubation reason, presence of aspiration, and LOS.

Results: There was a total of 127 GHB presentations of which 35 patients (28%) required intubation. Among these, 10 patients (29%) developed aspiration. The overall LOS for intubated patients was a median of 18 hours (IQR: 13-33 hours). Patients who were intubated without aspiration had a shorter median LOS of 15 hours (IQR: 12-23 hours). In contrast, those who experienced aspiration had a significantly longer median LOS of 32 hours (IQR: 24-54 hours). The reasons for intubation were airway protection (14 cases, 40%), airway obstruction (4 cases, 11%), situational control for agitation or seizures (5 cases, 14%), vomiting (10 cases, 29%) and unknown/ unrecorded (2 cases, 6%). Aspiration occurred in 5/10 cases who vomited, 3/4 cases with obstruction and 2/14 cases intubated for airway protection. There were two barotrauma complications, both occurring in patients intubated for obstruction, who also developed aspiration. No patients died.

Conclusion: The findings indicate that aspiration significantly prolongs the hospital stay for patients intubated due to GHB overdose. Aspiration was notably more frequent among those intubated for vomiting and airway obstruction. This highlights the need for protocols to identify patients at risk for aspiration to improve clinical outcomes. Further research is warranted to develop targeted strategies for reducing aspiration risk in this patient population.