

Presented at the ACMT Annual Scientific Meeting 2024 – Washington DC

Published in J Med Tox 2024; 20:72.

### **156. Characteristics and Outcomes of Enteral Caustic Exposures Described in the Toxicology Investigators' Consortium (ToxIC) Core Registry**

Elizabeth G Shanahan, Christopher P Mitchell, Allison R Font, Michael O Khoury, James A Krueger

*Jefferson Einstein Hospital, Jefferson Health, Philadelphia, Pennsylvania, USA*

**Background:** Ingestion of caustic xenobiotics causes variable morbidity and mortality, and treatment options are limited. Post-exposure risk stratification relies on nonspecific symptoms and multidisciplinary consultation to directly visualize gastrointestinal mucosa with esophagogastroduodenoscopy (EGD). Research question: How frequently is EGD performed in patients with enteral caustic exposures after bedside evaluation by a medical toxicologist?

**Methods:** This is a secondary analysis of patients with enteral exposure to caustic and household products evaluated by a medical toxicologist and recorded in the Toxicology Investigators Consortium (ToxIC) Core Registry between 2013-2023. Patients were excluded for non-enteral route of exposure or ingestion of non-caustic agent (e.g. toothpaste). Agents were categorized as acid, alkali, oxidizing, or laundry detergent pod, referring to ingredients in safety data sheets for branded products. Primary outcome was EGD; secondary outcomes were mortality, severity of injury, treatment with steroids, and suicidal intent. Statistical analysis was performed using IBM SPSS for Macintosh version 29.0.

**Results:** Six hundred and forty-two patients met inclusion criteria. One hundred and nineteen (18.5%) patients underwent EGD. Sixty (9.3%) had no injury. Twenty-four (3.7%) had grade I, 10 (1.6%) had grade IIa, four (0.6%) had grade IIb, five (0.8%) had grade III, and one had grade IV injuries. Six patients died; seven underwent surgical intervention. Twenty-two (3.4%) received steroids. Two hundred and sixty-eight (41.7%) ingestions were suicide attempts. Oxidizing agents were most frequently ingested (36.4%) followed by alkali (26.9%), acid (18.8%), and laundry detergent pods (19.4%). Long term complications were rarely recorded.

**Conclusion:** Though often recommended, especially in intentional ingestion, EGD is uncommonly performed in caustic exposures evaluated by toxicologists. Limitations include lack of insight into treating clinicians' medical decision-making, incomplete data availability, as not all patients designated as having corrosive injury were denoted to have EGD, very low rates of secondary outcomes, and reporting and sampling biases.