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EVALUATION OF ASSOCIATION AND CONCORDANCE OF PREDICTIVE FACTORS ASSOCIATED UPPER GASTROINTESTINAL CAUSTIC INJURY FOLLOWING AN ACUTE CORROSIVE INGESTION TO ENDOSCOPIC FINDINGS

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Introduction: The ingestion of caustic substances remains to be the main reason for referral received by the toxicology service in Philippine General Hospital with a prevalence of 23% of 500 cases per year. Rapid assessment of severity of injury is important for treatment and disposition of caustic injuries, this study aimed to show the correlation between the signs and symptoms and severity based on Zargar Classification of caustic injury.

Methods: This is a nested case control study conducted in Philippine General Hospital utilising secondary data from patient hospital records and case report files from UP PGH National Poison Management and Control Center.

Results: A total of 105 patients were included in this study with 35 patients as cases and 70 as controls presenting in the emergency room within 24 hours of corrosive ingestion with initial endoscopy done within 24-48 hours from time of ingestion . Mean age was 27 years old (±10), 47% were male, and 53% were female. All patients had non-accidental. Among controls, 40% were due to acid ingestion, 60% were due to alkali and among cases 51% were acid ingestion and 49% were alkali ingestion. Amount of the substance, presence of coingestants and pH of susbtance were not predictive of a high grade caustic injury. Among the substance type, hydrochloric acid and sodium hydroxide is positively associated with injury (p value 0.00) while silver jewelry cleaner is negatively associated with caustic injury (phi coefficient -0.47, p value 0.00, $\alpha=0.05$). Increasing number of symptoms on initial evaluation is also associated (p=0.00, $\alpha=0.05$). Using logistic regression analysis, statistically significant variables were entered into the logistic regression. Only leukocytosis was statistically significant with an OR 17.37 (p value=0.004, $\alpha=0.05$), with trends toward association shown by two other clinical predictors dysphagia OR=8.13 (p value=0.091, $\alpha=0.05$), no of symptoms 2.8 (p value=0.09, $\alpha=0.05$).

Conclusion and recommendation: Utilization of endoscopy and length of observation can be weighed against the probability of having a severe caustic injury. Factors that are predictive of injury after a caustic ingestion can be used to evaluate against such need for further evaluation. Diagnostic reliability however needs to be prospectively evaluated in the local setting to determine best cut off scores as well as performance of the tool in predicting severe caustic injury.