

## **Sodium Hypochlorite Poisoning: Is it necessary to perform urgent endoscopy for all victims?**

**Ahmad Ghoochani khorasani<sup>1</sup>, Zahra fakherdanesh, MD<sup>2</sup>, Ebrahim Ghoochani Khorasani,MD<sup>3</sup>, Abbas Aghabiklooei: Firoozgar<sup>4</sup>, Shahin Shadnia: Loghman<sup>5</sup>, Mohammad Mashayekhian<sup>6</sup>, Peiman Erfantalabevini<sup>7</sup>**

*<sup>1</sup> Loghman-Hakim Hospital Poison Center, Department of Clinical Toxicology, Faculty of Medicine, Shahid Beheshti University of Medical Sciences Mehdi Rezai: Iran University of Medical Sciences*

*<sup>2</sup> Arash hospital. Tehran university of medical science*

*<sup>3</sup> Tohid hospital. Petroleum industry health organisation (PIHO)*

*<sup>4</sup> Hospital, Faculty of Medicine, Iran University of Medical Sciences.*

*<sup>5</sup> Hakim Hospital Poison Center, Faculty of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

*<sup>6</sup> Emergency Medicine specialist, Fellowship in clinical toxicology*

*<sup>7</sup> Firoozgar Hospital, Faculty of Medicine, Iran University of Medical Sciences*

### **Abstract**

**Objective:** Acute corrosive poisonings appear as a result of ingestion of acids, bases, oxidants, heavy metal salts and other chemical substances. Sodium hypochlorite is found in household bleaching agents used to disinfect dishes and bleach laundry. The ingestion of sodium hypochlorite induces corrosive esophagitis and acute phase of gastritis. The severity of alkaline esophagitis due to sodium hypochlorite ingestion is variable and authors believed that the findings of endoscope within 48 hours of ingestion have great importance in establishing the diagnosis and therapeutic approach as well as its prognosis. The aim of this study was to determine predictive factors of gastrointestinal injuries that mandate early endoscopy.

**Methods:** This study consisted of 65 patients presented to Loghman Hakim toxicology center with history of sodium hypochlorite bleach exposure from 2010 to 2014. We enrolled only patients who underwent urgent endoscopy. The post-corrosive damage classified according to Kikendal's grading.

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**Results:** There were a total of 19 males and 46 females with a mean age of 34.21 (95% CI, 30.10- 38.62) years old. In upper endoscopy 20% of poisoned patients had abnormal findings. Male gender ( $p=0.029$ ), presence of hoarseness ( $p=0.04$ ), nausea and vomiting ( $p=0.007$ ), and sialorrhea ( $p=0.044$ ) were predictive factors for the occurrence of gastrointestinal injuries.

**Conclusions:** The incidence of acute corrosive poisonings is increasing. Many authors believe that there is poor correlation between signs and symptoms and the degree of injury, thus endoscopic examination of the upper gastrointestinal tract has been recommended in most patients with a history of bleach ingestion. However, early endoscopy is hazardous because it may aggravate the airway obstruction. We proposed four factors that associated with gastrointestinal injuries and could be important factors that mandate urgent endoscopy.

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