**INTRODUCTION**

- Sodium hypochlorite aqueous solutions are important chemical disinfectants widely used in domestic settings as household bleach; hypochlorite concentration may range from 1-5% to 10-30% and may be characterized by a pH ranging from 10 to 13.
- Sodium hydroxide 0.5-1% is usually added to stabilize hypochlorite solutions.
- Therefore, household bleach causticity is multiple mechanisms that may be related either to fatty acid saponification of alkaline pH or to amino-acid degradation and oxidative action of hypochlorite ions and hypochlorous acid [1-2].

**RESULTS**

**Patients included**
In Pavia Poison Centre experience 109 cases of 1-5% hypochlorite (household bleach) certain ingestion has been retrospective evaluated during a 20 months period (January 2011-August 2012).

**Type of exposure and clinical manifestations**
Deliberate ingestion was registered in 31/109 (28%) patients while 78/109 (72%) accidentally ingested hypochlorite. All patients presented clinical manifestations characterized by abdominal pain (69/109; 63%) and spontaneous vomiting (54/109; 49%); no fatal cases were registered.

**Deliberate ingestions**
Deliberate ingestion was estimated in 100-200 mL in 19/31 (61%) cases and more than 200 mL in 12/31 (39%) cases. Most deliberate ingestion were adult patients (4/31 were 14-18 years old; 27/31 were 18-75 years old). Among deliberate ingestion 25 patients underwent EGDS and 13/25 (52%) presented moderate or severe esophageal and gastric lesions (9 with grade IIA; 2 with grade IIB and 2 with grade III).

**Accidental ingestions**
Among accidental ingestion 46/78 (59%) patients were under 14 years old, 27/78 (22%) were 14-18 years old, and 30/76 (39%) were 18-73. Nineteen (25%) patients with an history of accidental ingestion underwent EGDS that evidenced moderate gastric-esophageal lesions (grade IIA) in 10/19 (52%) patients.

**Clinical worsening**
Three patients (1 accidental and 2 deliberate ingestion) presented a clinical worsening of esophageal and gastric lesions during the following 12-24 hours after hypochlorite ingestion.

**CONCLUSION**
Hypochlorite ingestion may represent a medical emergency. Diagnosis and therapeutic approach can be difficult, and not standardized as in the medical literature. Considering our case series, more than half of symptomatic accidental ingestions (‘one swallow’) of 1-5% hypochlorite solution present with moderate-severe esophageal-gastric lesions. In deliberate massive ingestions it would be reasonable to perform a prompt EGDS in the emergency setting followed by a second-look EGDS within 12-24 hours aimed to evaluate a potential clinical worsening of gastric-esophageal lesions.

**OBJECTIVE**
To describe clinical manifestations and Zargar classified esophago-gastro-duodenoscopy (EGDS) [3] of a retrospective case series of sodium hypochlorite ingestion from Pavia Poison Centre (PPC) experience.

**METHODS**
- Study design Retrospective analysis
- Study setting Pavia Poison Centre
- Study period January 2011 - August 2012
- Included patients certain ingestion not diluted sodium hypochlorite no sodium thiosulphate

**REFERENCES**