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CASE SERIES ON DETERGENT, PHENOL, AND LYSOL POISONING: CLINICAL PRESENTATIONS AND MANAGEMENT

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ABSTRACT

This case series describes three distinct cases of poisoning involving FAB detergent, phenol, and Lysol, presenting to the Emergency Medicine Department at Sri Venkateswara Institute of Medical Sciences (SVIMS), Tirupati, India, between March and April 2025. These cases highlight varied clinical presentations, laboratory findings, and also management strategies. The detergent case involves a 16-year-old male with mild hyperbilirubinemia, the phenol case a 24-year-old male with corrosive ingestion, and the Lysol case a 77-year-old male with accidental ingestion. All patients received conservative management, with outcomes ranging from discharge to leaving against medical advice (LAMA). These case series underscore the importance of rapid diagnosis and tailored treatment for effective management of household chemical poisonings.

INTRODUCTION

Poisoning from household chemicals such as detergents, phenol, and Lysol is an important public health concern due to their widespread availability and as well as toxic potential. Detergents containing surfactants and alkaline agents, can cause gastrointestinal irritation or systemic effects [1]. Phenol which is a corrosive aromatic compound, is known for severe mucosal damage and systemic toxicity [2]. Lysol which is a disinfectant containing cresols and other phenols, may also lead to similar corrosive injuries [3]. Here we are presenting three cases managed at SVIMS, Tirupati, focusing on clinical features, laboratory findings, and treatment approaches to guide emergency clinicians.

Case Presentations

Case 1: FAB Detergent Poisoning

A 16-year-old male presented to the Emergency Medicine Department (EMD) on 28 March 2025 with a history of deliberate ingestion of an unknown quantity (approximately 70 ml) of FAB detergent at 11:00 AM near Korlagunta, Tirupati. Post-ingestion, he experienced coughing and expelled approximately 30 ml of the compound, followed by two episodes of loose stools. On admission, vitals were stable (temperature: 98.6°F, RBS: 124 mg/dl). Clinical examination was unremarkable, and gastric lavage was not performed. Laboratory findings revealed mild hyperbilirubinemia (serum total bilirubin: 1.6 mg/dl, conjugated direct bilirubin: 0.4 mg/dl), with normal repeat liver function tests (LFTs). Other investigations, including complete blood count (CBC) and renal function tests (RFT), were within normal limits. Treatment included symptomatic management with capsule Becuzoles Z and tablet Pantoprazole 40 mg. Psychiatry consultation was sought for deliberate self-harm. The patient was discharged hemodynamically stable on 30 March 2025.

Case 2: Phenol Poisoning

A 24-year-old male presented to the EMD on 9 April 2025 with a history of phenol ingestion (approximately 100 ml) at 3:00 PM in Autonagar, Tirupati, following chronic alcohol consumption (last intake four days prior). He reported throat and epigastric burning pain without vomiting or chest pain. Vitals on admission included a pulse rate of 58 bpm (critical), blood pressure of 128/68 mmHg, and SpO2 of 98%. Physical examination revealed posterior pharyngeal wall edema and upper abdominal tenderness. Laboratory findings showed elevated prothrombin time (PT: 16.5 seconds, INR: 1.37) and C-reactive protein (CRP: 61.07). Gas chromatography-mass spectrometry (GC-MS) confirmed phenol in the blood. Ultrasound and upper gastrointestinal (UGI) endoscopy were normal. Treatment involved conservative management with intravenous (IV) fluids, tablet Pantoprazole 40 mg, tablet Hyocimax 10 mg, tablet Thiamine 100 mg, tablet B-complex, and syrup Sucralfate 10 ml. The patient tolerated a soft diet and was discharged on 11 April 2025 with follow-up advice.

Case 3: Lysol Poisoning

A 77-year-old male presented to the EMD on 16 April 2025 following accidental ingestion of approximately 100 ml of Lysol at 6:00 PM near Karvetinagaram. He reported non-bilious vomiting, burning pain from throat to epigastric region, and anuria since evening. Vitals included blood pressure of 140/90 mmHg, pulse rate of 78 bpm, and SpO2 of 98%. Laboratory findings showed elevated eosinophil count (7%), prothrombin time (PT: 17.5 seconds, INR: 1.44), and low hemoglobin (12.2 g/dl). GC-MS confirmed Lysol poisoning. Systemic examination was normal, with a Glasgow Coma Scale (GCS) of 15/15. Symptomatic treatment was initiated, but the patient's attendants opted for discharge against medical advice (LAMA) after initial improvement. Risks were explained, and emergency contact numbers were provided.

DISCUSSION

This case series illustrates the diverse clinical manifestations of household chemical poisonings. In Case 1, detergent ingestion resulted in mild gastrointestinal symptoms and transient hyperbilirubinemia, likely due to surfactant-induced irritation [4]. The absence of severe corrosive damage may be attributed to partial expulsion of the ingested compound. Case 2, involving phenol ingestion, presented with classic corrosive symptoms and laboratory evidence of systemic absorption (elevated PT and CRP) [5]. The normal UGI endoscopy suggests limited mucosal damage, possibly due to early intervention. Case 3, Lysol poisoning in an elderly patient, was complicated by anuria and eosinophilia, indicating a possible inflammatory response [6]. The LAMA status limited further evaluation.

Management focused on supportive care, including proton pump inhibitors (PPIs), analgesics, and nutritional support, tailored to the corrosive potential of each agent. The use of Pantoprazole and Sucralfate in Cases 2 and 3 addressed mucosal irritation, while B-complex and Thiamine in Case 2 supported metabolic recovery in the context of chronic alcohol use [7]. The psychiatric consultation in Case 1 highlights the importance of addressing underlying mental health issues in deliberate self-harm [8].

Limitations include the lack of imaging or histopathological data and incomplete follow-up in Case 3. The absence of standardized toxicological screening protocols for household chemicals in resource-limited settings also poses challenges. Future studies should explore long-term outcomes and develop guidelines for managing such poisonings.

CONCLUSION

Household chemical poisonings present with varied clinical features requiring prompt recognition and conservative management to minimize morbidity. This case series from SVIMS, Tirupati, emphasizes the need for clinician awareness

of detergent, phenol, and Lysol toxicity. Public education on safe storage of household chemicals and improved access to toxicological expertise can enhance outcomes.

Conflict of Interest:
The author declares no conflict of interest.

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