PICTORIAL ESSAY

Spotlight Chest X-ray Shot

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Abstract

We report the case of a 48-year-old female who presented to the emergency department following ingestion of a rodenticide. A chest radiograph obtained to assess for possible aspiration unexpectedly revealed a radiopaque density in the gastric region. This finding was noteworthy, as most corrosive and caustic substances are radiolucent and, therefore, seldom detectable on plain radiographs. The radiographic appearance correlated with the clinical history and underscored the potential diagnostic role of plain imaging in selected poisoning cases. The patient received appropriate multidisciplinary management and was discharged in stable condition. This case highlights the value of maintaining a high index of suspicion and the occasional utility of plain radiographs in the emergency evaluation of corrosive ingestion.

Keywords: Chest X-ray, Emergency, Toxicity.

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Case Report

A 48-year-old female presented to the emergency department with a history of intentional ingestion of rat killer. On arrival, her vital signs were stable, and systemic examination was unremarkable. A chest radiograph was performed to evaluate for potential aspiration or thoracic complications. Surprisingly, the film demonstrated a well-defined radiopaque density within the gastric region.

This appearance was atypical, as most corrosive or caustic substances are radiolucent and rarely visible on plain radiographs. The radiopaque finding in this case suggested the presence of certain compounds within the ingested substance that possessed intrinsic radiodensity. The correlation between the ingestion history and the radiographic finding aided in reinforcing the diagnosis (Fig. 1).

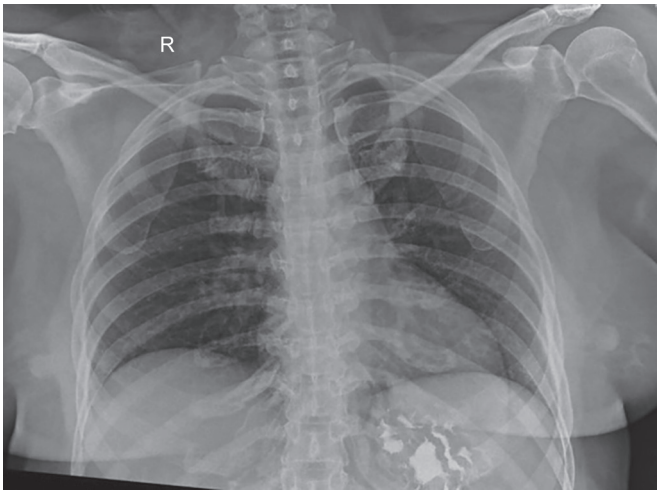

Fig. 1: Chest X-ray showing radiopaque density in the stomach

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The patient was managed conservatively with multidisciplinary input from emergency physicians and relevant specialists. She had an uneventful recovery and was discharged in stable condition after a brief hospital stay.

Discussion

Corrosive ingestion remains a significant clinical problem, particularly in emergency settings where the nature of the substance is often uncertain. While history and clinical findings guide initial management, radiographic evaluation may occasionally provide diagnostic clues. Most caustic agents, such as acids and alkalis, are radiolucent; however, some rodenticides and household agents may contain radiopaque components (e.g., heavy metals, phosphides, or additives), which can be detected on plain films.[1]

The primary role of imaging in corrosive ingestion is usually to assess for complications such as perforation, aspiration, or mediastinal involvement. Nonetheless, the detection of radiopaque densities can support the clinical suspicion of ingestion, aid in

confirming the presence of the substance in the gastrointestinal tract, and guide further management.[2,3]

This case underscores the importance of considering plain radiography as a useful adjunct in selected poisoning cases. Although advanced modalities such as CT and endoscopy provide detailed evaluation, the availability, speed, and low cost of plain radiographs make them valuable in emergency practice.

Conclusion

While plain radiographs are not routinely diagnostic in corrosive ingestion, they may occasionally reveal unexpected but clinically relevant findings. Emergency physicians should remain vigilant for such radiographic clues, which can complement clinical assessment and improve patient care.

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