

Paraquat tongue

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DESCRIPTION

Paraquat, a bipyridylum herbicide, is a commonly used agent in deliberate self-poisoning in developing countries.¹ Gastrointestinal symptoms are ubiquitous in patients presenting after its oral ingestion.²

We describe a case of a 24-year-old man who presented to emergency medical services 5 h after intentional consumption of 10–15 mL of herbicide diluted in beer. Identification of the poison as paraquat was based on anamnesis and examination of the concentrate container that was brought along. Serum or urinary paraquat levels were, however, not available for confirmation. Acute renal and hepatic injuries had ensued and were being serially monitored (figure 1) in the department of internal medicine. No significant lung changes were evident in the chest radiograph made on the seventh day. The clinical management included fluid and electrolyte balance, N-acetylcysteine, pulsed doses of cyclophosphamide and methyl prednisolone, haemodialysis and prolonged dexamethasone therapy.

Meanwhile, the patient had developed extensive ulcers and burning sensation on his tongue, and was referred on the 13th day to the department of dentistry. He reported that his tongue was completely normal prior to ingestion of paraquat. Redness and burning sensation had started the day

after ingestion and the lesions had slowly progressed to form multiple painful ulcers over the past 10 days.

Intraoral examination revealed a characteristic 'Paraquat tongue'. A large coalescent ulcer with yellowish necrotic base was seen covering almost the whole of the anterior two-thirds of the dorsum (figure 2). Deep fissures and raw areas with bleeding from the surface were seen interposed between the areas of necrosis. Six ulcers varying in size from 4 to 12 mm with similar surface characteristics were seen in the posterior one-third. Actual ingestion of the caustic agent or spitting it out without swallowing could both result in such a clinical picture,² but the presence of intoxication symptoms indicate more likelihood of the former in this case. An upper gastrointestinal endoscopy revealed oedema and hyperaemia of oesophageal mucosa without signs of major erosion.

The tongue burn was managed symptomatically by topical application of 20% benzocaine gel for surface anaesthesia and metronidazole oral gel to prevent secondary infection. At discharge a week later, the patient's renal and hepatobiliary parameters were moving towards normalcy (figure 1) and the tongue ulcers were healing satisfactorily. The need for sequential follow-up, especially for pulmonary fibrosis arising as a late complication,^{2 3} was thoroughly explained to the patient.

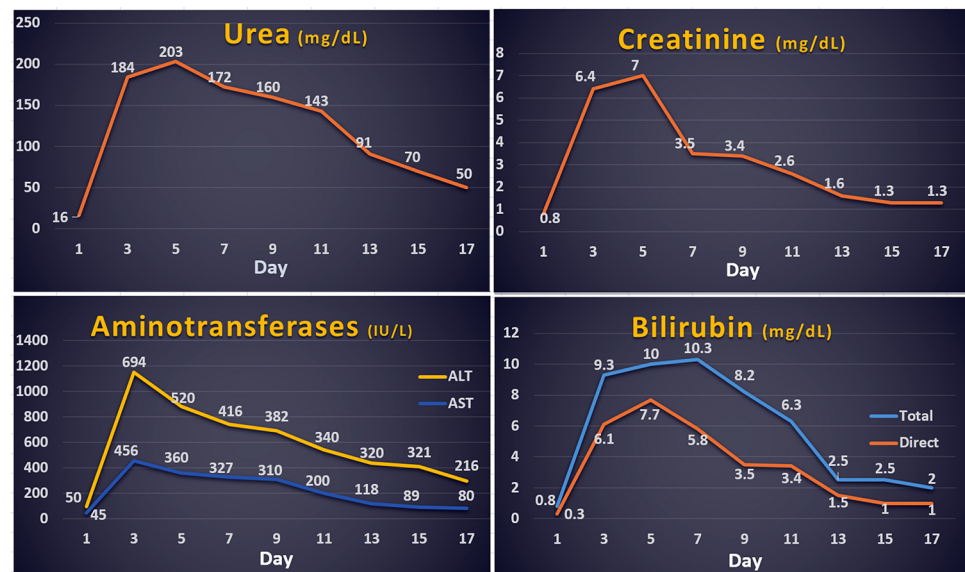


Figure 1 Serial haematological investigations indicating the acute renal and hepatic injury and the recovery with treatment.



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Figure 2 Paraquat tongue as seen on the 13th day after oral ingestion of the agent.

Learning points

- ▶ Extensive ulceration of the tongue is a common sequelae after oral ingestion of paraquat.
- ▶ Glossodynia is an early indicator of mucosal injury in such cases.
- ▶ The severity of oral lesions may be predictive of far more threatening erosions elsewhere in the gastrointestinal tract and hence requires thorough assessment.
- ▶ Serial monitoring for renal, hepatic and lung injuries and long term follow-up are mandatory in cases of paraquat poisoning.

Competing interests None.

Patient consent Obtained.

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