[ID-P#068] Management of Paraquat Poisoning with Combination of High Dose Steroid Pulse, Immunosuppression,

Antioxidants, and Antifibrotics: A Case Series

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Background: Paraquat ingestion is associated with multi-organ failure and high mortality. The lack of management guidelines and an appropriate antidote is concerning. This report discusses the successful treatment and management of four patients at our center.

Methods: Four patients with paraquat ingestion who presented to the emergency department of Christian Medical College, Vellore, were treated with 1) Extended pulse administration of Intravenous Methylprednisolone for six days, followed by intravenous/oral Methylprednisolone at progressively halved doses every two days, 2) Intravenous followed by oral N-acetylcysteine infusion, 3) Intravenous Cyclophosphamide for two days, 4) High-dose per-oral Vitamin C and Vitamin E, 5) Antifibrotic, either Pirfenidone or Nintedanib and, 6) Supportive management. We documented symptoms and signs, monitored biochemical parameters, and performed high-resolution CT scans of the thorax at intervals to determine the extent of paraquat-related lung injury.

Results: The mean age was 28 years. The quantity of Paraquat ingested ranged from 10 ml to 50 ml of 24% paraquat. Out of 4 patients, 3 had paraquat tongue with corrosive injury. All four patients showed a serial rise in creatinine with a mean highest value of 3.61mg%, but on follow-up, their creatinine levels returned to normal. Two patients' liver enzymes were elevated and later resolved on follow-up. Three patients had ground glass opacifications on a high- resolution CT scan. At the three-week follow-up, all patients were alive without disabilities. The renal and liver function remained normal. Follow-up at six months showed no delayed effects or complications related to the poisoning.

Conclusion: A management approach with combination therapy has shown great promise in treating Paraquat poisoning and preventing the development of lung fibrosis. This innovative approach represents a significant advancement in Paraquat poisoning management and has produced highly encouraging results in our cases.