Emerging Epidemic of Fatal Human Self Poisoning With a Washing Powder in Southern Sri Lanka: A Prospective Observational Study

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Introduction : A new laundry detergent consisting two sachets of 1.2g of potassium permanganate (KMNO4) and 12.5g of oxalic acid (OA) has become a popular agent for self poisoning in the south of Sri Lanka. We report the first case series. **Case series :** Prospective clinical data, major outcomes and post- mortem findings were recorded in patients admitted to a referral hospital from January 2007 to September 2008. Serial biochemistry was performed in 20 patients. Retrospective case analysis was done in 4 referring hospitals.There were 37 deaths reported from the study hospitals.26 patients were admitted to one of the referring hospitals and 12 died (case fatality ratio of 46.2% (95% CI 27.9- 65.2). Eleven patients died in transit to the hospital while the 12thdied soon after admission. There were 19 deaths in the other 3 referring hospitals.At the referral hospital, there were 103 (61 females, median age 22.5years) patients. There were twice as many patients in 2008 compared to 2007. 4 died within 24 hours while 2 died within 2 weeks due to renal failure and septicaemia.All the fatalities ingested OA while a few ingested both OA and KMNO4. All acute deaths were preceded by resistant hypotension, one had ventricular fibrillation.Of the 20 patients who ingested both KMNO4 and OA, the median serum creatinine estimated on day 2 was 1.7mg/dL (IQR 0.91 -4.4; normal range 0.5- 1.3mg/dL) and 28% had evidence of renal failure. Ingestion of more than one sachet is associated with a significantly higher risk of death (risk ratio 12.43, (95% CI 3-51, $p<0.05$). Post- mortem findings revealed mucosal ulcerations in majority while 2 had congested lungs. **Discussion :** This case series highlights an emerging fatal self poisoning in Sri Lanka. As number of cases have doubled in two years more deaths are likely in the coming years if manufacture and sale of this product is not regulated.Cause of rapid death is most probably cardiac in origin due to OA as there were no deaths in the group that ingested only $KMNO_4$. As deaths occur soon after ingestion medical management of these patients is bound to be difficult.