

Oral Abstracts

2B-05

EXTRAPYRAMIDAL EFFECTS OF ACUTE ORGANOPHOSPHATE POISONING

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Objectives: There is limited information on extrapyramidal symptoms in acute organophosphate (OP) poisoning. We describe the course and outcome of severely poisoned patients who develop extrapyramidal manifestations.

Methods: In this prospective observational study, spanning 8 months (Apr–Nov 2013) adult patients (>18 years) admitted with OP poisoning were enrolled. Patients on anti-psychotic therapy, those refusing consent or presenting with co-ingestions were excluded. Treatment included atropine and supportive care (e.g. ventilation and inotropes as indicated); oximes were not administered. The presence of rigidity, tremors, dystonia and chorea were assessed daily till discharge using modifications of the Unified Parkinson's Disease rating scale and the Tremor rating scale. The presence of extrapyramidal manifestations was correlated with length of ventilation and hospital stay and mortality.

Results: Of the 77 patients admitted with OP poisoning, 32 were enrolled; 17 (53.1%) developed extrapyramidal manifestations which included rigidity (94.1%), tremors (58.8%) and dystonia (58.8%). None developed chorea. The median (inter-quartile range) time of symptom onset was 8 (5–11) days; extrapyramidal features resolved in 11 (6–17) days. The median duration of intensive care stay in patients not developing extrapyramidal symptoms was 6 (2–8) days. Overall, 27/32 (84%) were ventilated. Hospital mortality was 6.25% (2/32). When compared with patients not developing extrapyramidal signs, those with extrapyramidal manifestations had significantly prolonged ventilation (5 versus 16 median days; $p = 0.001$) and hospitalization (8 versus 21 days; $p < 0.001$), reduced ventilator-free days (23 versus 12 days; $p = 0.023$) and increased infections ($p = 0.03$). The need for ventilation and mortality were not significantly different ($p > 0.6$). Extrapyramidal symptoms were not observed in non-OP poisoned patients with prolonged ICU stay.

Conclusion: In this small series of acute OP poisoning, extrapyramidal manifestations were common after 1 week of intensive care but self-limiting. They are significantly associated with longer duration of ventilation and hospital stay.