Poster Abstracts

PO-68

ORPHENADRINE INGESTION : A CASE SERIES

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Objectives: Orphenadrine is an antihistamine possessing both anticholinergic and sodium channel blocking properties. Orphenadrine overdose has been relatively rare because it has been superseded by better therapeutic alternatives. However, the trend toward utilising non-opioid agents to treat chronic pain has seen a resurgence in the therapeutic use of orphenadrine for its antispasmodic effects. This study aimed to describe orphenadrine ingestions presenting to a regional toxicology service.

Methods: The Hunter Area Toxicology Service database (HATS) was searched for ingestions involving orphenadrine from 2000 to 2015. Data extracted included age, sex, dose ingested, coingested toxins, disposition ward, length of hospital stay and any complications which occurred.

Results: There were a total of 14 presentations to HATS within the database. Of these, 4 occurred prior to 1996 and 10 occurred from 2008 onward. Of the latter 10, six were male and median age was 44 years old (range 31-51). Ingested dose was unquantified in three cases, one of which was supratherapeutic use rather than acute an acute monointoxication. Less than 500mg was ingested in three cases and greater than 3g in four cases. The median length of stay was 35 hours (range: 16-378h). Intubation and intensive care was required in three cases all of whom ingested 3g or greater. Seizures occurred in four cases, three whom ingested greater than 3g, with multiple seizures occurring in 2 of these cases. In the case of seizure ingesting less than 3g, tramadol, a potential confounding pro-convulsant had been co-ingested. Delirium occurred in seven cases including all four ingestions greater than 3g. Quetiapine, a potential confounder, was ingested in one of these. Of the other three, one case reported ingesting 300 mg but the dose was unquantified in the other 2 cases. The QRS was greater than 120ms on electrocardiogram in two cases which were treated with hypertonic $NaHCO_3$. Although both cases were intubated, they did not develop any arrhythmias or hypotension. This information is presented in more detail in table 1. Orphenadrine was detected in blood in two patients. In the patient ingesting 9g the elimination half-life was 60h.

Conclusion: Based on this small case series, large ingestions of orphenadrine are associated with multiple seizures and profound anticholinergic delirium. Sedative medications are likely to be required and the clinical picture may necessitate intubation and ventilation to manage the behavioural state.

Table 1

Case	Sex	Dose ingested (mg)	Length of stay (hrs)	Delirium	Seizures	Ventilation	Peak QRS length	Confounding co-ingestants
1	M	4000	46	Yes	1	No	<120 ms	Yes
2	M	NQ*	16	No	1	No	<120 ms	Yes
3	F	300	75	Yes	0	No	<120 ms	No
4	F	300	14.5	No	0	No	<120 ms	No
5	F	7200	58	Yes	0	Yes	160 ms	No
6	M	3000	101	Yes	>1	Yes	130 ms	No
7	M	NQ*	27	Yes	0	No	<120 ms	No
8	M	NQ*	35	Yes	0	No	<120 ms	No
9	M	200	27	No	0	No	<120 ms	No
10	F	9000	380	Yes	>1	Yes	<120 ms	No

*Not Quantified