



Abstracts of the 2003 North American Congress of Clinical Toxicology Annual Meeting

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2003 NACCT Abstracts

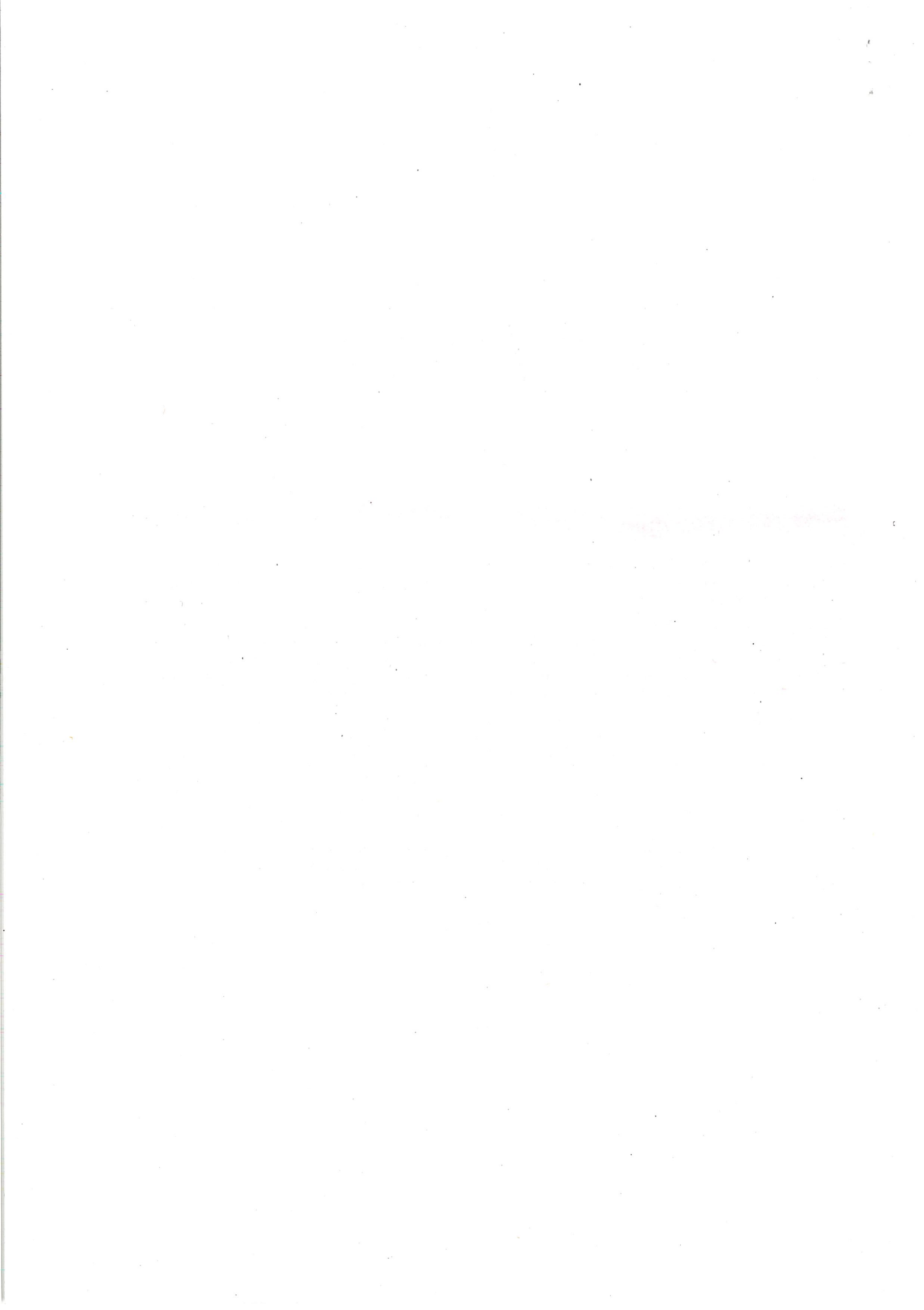
12. AN OUTBREAK OF SEVERE RODENTICIDE POISONING IN NORTH VIETNAM CAUSED BY ILLEGAL FLUOROACETATE

Höjer J,¹ Hung HT,² Du NT,² Kylin H,³ Rosling H.⁴ ¹Swedish Poisons Information Centre, Stockholm, Sweden; ²Poison Control Centre, Hanoi, Vietnam; ³Department of Environmental Assessment, SLU, Uppsala, Sweden; ⁴Karolinska Institute, Stockholm, Sweden.

Background: Since January 2002 well over 100 cases of rodenticide poisoning have been admitted to the Clinical Toxicology Unit of the PCC in Hanoi. The responsible product is brought illegally from China, where it is illegally produced. It has been suspected to contain some organic fluorine compound. **Methods:** NMR spectroscopy, using standards of fluoroacetamide and sodium fluoroacetate as references, was used to analyze four liquid samples of the type of rodenticide ingested. The clinical findings in three typical cases are summarised below:

Case series	Initial GI symptoms	Hyperreflexia, rigidity, S-CPK ↑	Recurrent seizures	ECG findings	Hospital duration/outcome
8 years, F accidental	Yes	Yes	Yes	T inversions and supravent. tachy.	11 days/survival
17 years, F suicidal	Yes	Yes	Yes	Prolonged QT; SVT	7 days/survival
21 years, F suicidal	Yes	Yes	Yes	Prolonged QT; VT; ventric. fibr.	1 day/fatal

Results: The presence of sodium fluoroacetate was demonstrated in all four rodenticide samples analysed. **Conclusion:** Although the extremely toxic substance sodium fluoroacetate has been banned as a rodenticide in China and Vietnam for many years, extensive illegal use is apparent and severe cases of intoxication are numerous.



12. AN OUTBREAK OF SEVERE RODENTICIDE POISONING IN NORTH VIETNAM CAUSED BY ILLEGAL FLUOROACETATE

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13. XYLAZINE INJECTION IN MAN

Wolowich WR,¹ McPeak J,² Good TG,³ Casavant MC.³ ¹Nova Southeastern University, Ft. Lauderdale Florida, USA; ²Harrison Hospital, Cadiz, Ohio, USA; ³Central Ohio Poison Center, Columbus, Ohio, USA.

Background: Xylazine is an alpha-2 agonist used as an animal tranquilizer; the LD50 in dogs is 47 mg/kg. **Case Report:** A 52 y. o. 97 Kg male was brought to the ED at 02:00 h after IM injection of 2.5 g xylazine, (25.8 mg/kg) (Rompum[®] Bayer) and ingestion of the balance (2.5 g) of the 50 mL vial in a suicide attempt. The patient had a history of depression and was prescribed bupropion. He was disoriented and semiconscious on presentation but aroused to verbal stimuli. He was breathing (rate=22/min) but had apneic periods of 15 to 20 seconds; pulse oximetry was 89–97%; pulse 74; BP 140/102. Lavage was performed and 100 g charcoal with sorbitol were given at 02:30. Gastric contents were clear, and a pink substance around the mouth was noted. Abnormal laboratory values included: glucose 234 mg/dL, BUN 21 mg/dL, calcium 8.0 mg/dL, WBC 13.4. A screen for drugs of abuse in plasma was negative for amphetamines, barbiturates, benzodiazepines, cannabinoid, cocaine, opiates, and phencyclidine. A sample of blood drawn at 03:00 h did contain xylazine 2 mg/L. Blood glucose remained elevated for 24 h. He recovered without further incident and was discharged 36 hours after admission. **Conclusion:** Three other cases of self injection of large amounts (>1 g) of xylazine are reported: a 27 years old male injected 1.5 g (13 mg/kg) IM causing a plasma concentration of 4.6 mg/L (the highest value reported in a human), a 37 years old female injected 2.4 g (22 mg/kg) IM, and a 34 years old male injected 1 g (15 mg/kg) IM. Like our patient, all three patients were hyperglycemic (177, 176, 196 mg/dL). Although the toxidrome "should" include hypotension, our patient and two of the three above patients were hypertensive upon presentation (180/100, 166/70). Recovery was complete in all cases.

14. PHYSOSTIGMINE ADMINISTRATION FOR QUETIAPINE TOXICITY

Watts D, Wax P. *Good Samaritan Regional Medical Center, Phoenix, Arizona, USA.*

Background: Quetiapine is an atypical antipsychotic which has been reported to possess minimal affinity for muscarinic cholinergic receptors. Case reports describing quetiapine overdose make no specific mention of clinical



eligible for inclusion. Data sheets were recorded with time of ingestion, triage time and time to start and completion of AC. **Results:** 107 patients were enrolled. Mean time from ingestion to triage was 202.28 min (95% confidence interval (CI) 148.8–255.7). Mean time from triage to start of AC was 80.7 min (CI 57.9–103.5). The time from start to of AC to completion was 12.63 min (CI 8.7–16.5). There were no differences in times comparing patients arriving by private vehicle and those arriving by ambulance, in contrast to a similar previous study at this institution (Ambulance 71.2 min (56.8–85.5) POV 104.7 (29.2–180.1). **Conclusion:** Acutely poisoned adult patients often arrive at the ED after the traditional time window of GID efficacy has passed. The additional delay to AC in the ED may make the efficacy of AC questionable in most acutely poisoned patients. In cases where AC is indicated, efforts must be made to decrease the “door to charcoal window.”

10. GHB-ASSOCIATED VENTRICULAR TACHYCARDIA AND QT PROLONGATION

Suchard JR,¹ Attai S.² *Departments of ¹Emergency Medicine and ²Internal Medicine, University of California Irvine Medical Center, Orange, California, USA.*

Background: GHB intoxication rarely causes life-threatening cardiovascular symptoms. The most common cardiovascular manifestations of GHB toxicity are bradycardia and mild hypotension, often not requiring specific therapy. Reports of other cardiac arrhythmias or conduction blocks from GHB are rare. We report a case of GHB intoxication associated with ventricular tachycardia and QT interval prolongation. **Case Report:** Paramedics brought a 22 year-old woman to the ED following ingestion of ethanol and GHB with her boyfriend at a sporting event. The patient arrived comatose (GCS = 7), with a pulse in the low 50 s/min (intermittently as low as 37/min), blood pressure 110/70 mmHg, respiratory rate 4/min. Oral suctioning aroused the patient enough to protect her own airway, and she was observed for resolution of symptoms. Thirty minutes after arrival, two brief episodes (<3 sec) of a wide-complex tachycardia were noted on the patient's cardiac monitor. The electrolyte profile was within normal limits, and a subsequent 12-lead ECG revealed sinus bradycardia with a QT interval of 528 m sec (QTc = 491). The serum ethanol level was 54 mg/dL; urine screening by EMIT, TLC, and GC-MS did not reveal the presence of any other drugs. The urine GHB level 90 min after ED arrival was 2173 µg/mL. The patient was admitted for further cardiac monitoring and observation. Serial ECGs showed normalization of the QT interval to 398 m sec over 8 hrs, and no further arrhythmias were recorded. The patient had a normal echocardiogram, ruled-out for myocardial infarction, and was discharged in stable condition on hospital day 3. **Conclusion:** This case demonstrates reversible QT interval prolongation and non-sustained ventricular tachycardia associated with acute GHB intoxication.

11. A 2 YEAR REVIEW OF PIOGLITAZONE AND ROSIGLITAZONE INGESTIONS

Burkhardt CB, Anderson IB. *California Poison Control System (CPCS), San Francisco Division, Department of Clinical Pharmacy, University of California, San Francisco, California, USA.*

Background: Pioglitazone (PioG) and rosiglitazone (RosiG) are thiazolidinedione antidiabetic medications. Since FDA approval in 1999, no reports of acute overdose have been published. **Methods:** A 2 year retrospective review of human PioG and RosiG ingestions reported to a regional poison control center during 2001–2002 was conducted. Cases involving co-ingestants, chronic ingestion, or those cases lacking follow-up (for clinical status and/or serum glucose readings) past the drug's therapeutic peak effect were excluded. **Results:** 210 cases were reported; 48 met the inclusion criteria. Of these, 25 (52%) patients ingested PioG and 23 (48%) patients ingested RosiG. The mean PioG dose was 54 mg (range 15–90 mg) and the mean RosiG dose was 15 mg (range 4–24 mg). The mean age was 20 years: 29 patients (60%) were under 7 years. Reason for ingestion: unintentional 27 (56%), therapeutic error 10 (21%), accidental double-dose 7 (15%), and suicide attempt 4 (8%). Activated charcoal or ipecac was given to 18 (38%) patients and 30 (62%) patients were observed or given food. **Disposition:** 21 (44%) home-managed cases, 22 (46%) ED-managed cases, and 5 (10%) admitted cases. Of the total 48 patients, one pediatric patient developed borderline hypoglycemia with a blood glucose of 59 mg/dL but no clinical symptoms. The patient did not receive IV glucose and it was unclear if the patient received any food/drink during the 4-hour hospital observation. Another patient developed mild diarrhea. The other 46 patients did not experience any effects. **Conclusion:** No evidence of serious toxicity was noted in our study. Although small to moderate accidental ingestions can probably be safely observed at home for clinical symptoms, further studies are needed to confirm our findings.

