Criminal Poisoning of Commuters in Bangladesh

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Objective: High numbers of patients with CNS depression from public transportation is a challenge for hospitals in Bangladesh. In the absence of specific diagnoses, care of the patients has been limited. To determine the cause of this condition and whether its circumstances (travelling, loss of belongings) are associated with criminal assault, or incidental to food adulteration. **Methods:**Analysis of urine samples from patients; liquid chromatography coupled to time-of-flight mass spectrometry (LC-TOF MS); fluorescence polarization immunoassay. A medicine unit of a public tertiary care teaching institution in Bangladesh's capital Dhaka. About 7.6% of admissions of this unit (46.6% of all poisoning) had been attributed to travel- related poisoning in 2005.Convenience samples of 15 patients were selected from those admitted with CNS depression in the absence of other abnormalities, during three consecutive days in May 2006. **Results:** All patients were unconscious upon admission. Incidents were associated with bus, train, taxi, or air travel, or local markets. Twelve patients remembered buying or accepting food or drinks. Direct financial damage (missing property) was diverse. By LC-TOF MS, lorazepam was detected in all samples. Five samples also contained diazepam or metabolites; nitrazepam was present in three. Immunochemical results were below the recommended cut-off in eight cases (lorazepam only) which would not have been detected by immunochemistry alone. **Conclusions:** In Bangladesh, the use of benzodiazepines for outpatients, as drugs of abuse, or for self-harm is uncommon. There was no history of conscious ingestion of benzodiazepines in our patients. We conclude that travel-related poisoning in Bangladesh is the result of organized crime at multiple levels, ranging from the illegal distribution of benzodiazepines to assault and robbery. Our findings highlight the need for more research in the neglected field of acute poisoning in Bangladesh, and for criminal investigations of the use of benzodiazepine drugs in this country.
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