



K68 Medicinal Drug Suicide: A Six-Year Forensic Survey

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Learning Overview: After attending this presentation, attendees will better understand the increasing trends of medicinal drug abuse for suicidal purposes in a metro city of India due to the easy availability of over-the-counter drugs and prescriptions for others.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by making attendees aware of the increasing problem of suicide by medicinal drugs that are prone to being missed if detection is not suspected.

Medicinal drug abuse has increased in recent years across the United States, Europe, and Australia and has acquired the top position along with other drugs of abuse. The most commonly abused medicinal drugs are opioids, followed by tranquilizers and psychotropic drugs. Medicinal drugs are easily available at home, are easy to obtain from a pharmacist on other people's prescriptions or even without a prescription (over the counter), are not illegal or expensive, are associated with less social stigma, are easily available over the internet, and have fewer side effects than street drugs.

The abuse is increasing in India, too, as reported by the United Nations Office on Drugs and Crime. According to the report, pharmaceutical drugs can be procured easily over the counter without any prescription. These are mainly synthetic opioids, tranquilizers, sedatives, and stimulants. These drugs are cheap compared to usual abusive drugs and are within the reach of the lower class. The National Crime Record Bureau of Government of India says that fatal medicinal drug abuses are mainly accidental overdoses used for various ailments and are procured over the counter from medical stores without any prescription.

In this study, cases of suicide with medicinal drugs from the South Delhi region of India were analyzed. Data on suicide by medicinal drugs were retrospectively analyzed. Drugs recovered from the scene of suicides were noted for their constituents and strength. Doses taken for suicide were estimated by considering the number of empty strips/vials of the drug that were used at the time of suicide. Relatives and friends of the deceased were interviewed at the time of the autopsy regarding the occupation of the victim, the source of the drug, and any history of abuse of that particular drug or any other drugs. The presence of the drug in the blood of these cases was confirmed through the reports from the Forensic Science Laboratory and from the departmental laboratory.

During this period of study, most of the suicides were due to hanging (~75%), followed by poisoning (~15%). Other causes of suicide were drowning, fall from height, and gunshot. There were 338 cases (201 males and 137 females) of suicidal poisoning; most of them were with pesticides used in agriculture (35%) and household chemicals (18%). Twenty males and seven females (8.0%) had committed suicide with medicinal drugs. The age range of males was 21-34 years while the age range of females was 22-32 years. Most of the males (45%) were students and the rest were mainly manual unskilled workers or unemployed. Among the females, most were housewives and students (43% each). The students had good knowledge of the various drugs available over the counter. Four victims were practicing doctors having access to various drug preparations. Out of 27 cases, 11 victims had consumed a drug having a combination of dextropropoxyphene (opioid analgesic) and dicyclomine (anticholinergic), mainly used as antispasmodic. Four victims consumed two drugs of different constituents, mainly combining alprazolam with others. The rest of the victims used drugs with a single constituent only. In three cases, drug constituents were not known. In 13 cases (48%), the drugs were obtained directly over the counter from the medical store without any prescription. In six cases, the drugs were prescribed by the treating physician for the victim or for a relative of the victim for various ailments. These legitimate prescriptions were mainly antispasmodics; one prescription was an antiepileptic and another prescription was an antidepressant. In three cases, the type of drug consumed was unknown, as the description of the content on the strip was not legible. How the victim acquired the drugs was not known. As per history, however, the drugs were not stored at home.

This study draws attention to the suicidal abuse of various medicinal drugs in an Indian metro city, which are easily available over the counter without any prescription or, with a prescription meant for oneself or for others. This method of suicide is easily preventable with the proper vigilance of prescribing doctors, dispensing chemists, and family members regarding suicidal abuse of various medicinal drugs.

Pharmaceutical Drugs, Over-the-Counter Drugs, Drug Overdose