



## A REVIEW ON DRUG TRAGADIES, DRUG ACCIDENTS, DRUG POISONING AND DRUG IN SUICIDE

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### ARTICLE INFO

### ABSTRACT

#### Key Words

Drug Tragadies, Drug Accidents, Drug Poisoning And Drug In Suicide



Drug is a chemical substance which is administered in-order to treat or prevent an illness. But in some instances it may lead to tragedies. It includes drug accidents poisoning and drug in suicide. The present review aims an explanation of drug tragedies and their examples approximately 50% of drug tragedies are serious to life threatening. Most of the cases are due to in adequate monitoring of therapy or in appropriate dose. Multidisciplinary prevention strategies from the physician, pharmacist, and other health-care professionals and patients focusing on communication and counselling should be targeted

## INTRODUCTION

Drug is a medication created to combat illness and disease. Drug is also defined as a medication administered by a doctor or a physician to a sick person in order to treat his/her illness/ailment. Drugs are administered after proper examination of the patient's condition which includes certain specific tests for the sickness. Base on test results prescription of the medicament is done. Drugs are not recommended at random, but after proper examination by doctor. Some patients instead of seeking the attention of a doctor or physician tend to self medication which often leads to drug tragedies. Thalidomide Disaster: This drug chemically, related to barbiturates and introduced as hypnotic and anti-

emetic. The sedative Thalidomide prescribed to pregnant woman for giving relief from morning sickness was found to produce various types of developmental abnormalities in the newborns. The commonest abnormalities were phocomelia or total absence of one or more limbs. Because of the teratogenic effect it is banned in 1960. But it is now reintroduced as immunomodulator and angiogenesis, inhibitor, anti-tumor drugs. Teratogenesis refers to the capacity of a drug to cause fetal abnormalities, when administered to pregnant mother. Abnormality Phocomelia, multiple defects of internal organs.

### **Sulphanilamide Disaster;**

Elixir sulphanilamide was an improperly prepared sulphanilamide medicine that cause mass poisoning in US in 1937. It caused death of more than 100 people. This disaster leads to passing of [1938] Federal, Food, Drug and Cosmetic act. In 1937, S.E Massengil company, a pharmaceutical manufacturer created a preparation of sulphanilamide using diethylene glycol as a solvent and called the preparation elixir sulphanilamide. Diethylene is poisonous to humans and other mammals but the chief pharmacist and chemist of the company was not aware of this case of fatality from diethylene glycol.

**Bhopal disaster:** It is also called Bhopal gas tragedy, a gas leak incident in India, the world worst industrial disaster. It occurs on 2 and 3 December 1984 at Union Carbide India limited pesticide plant in Bhopal, Madhya Pradesh. Over lakh people exposed to methyl isocyanate gas and other chemicals which are highly toxic, make the way around the towns.

**Punjab Tragedy:** Punjab Institute of cardiology claimed more than 200 lives. Those deaths are caused by ingestion of Isotab. Tablet dispensed by health care to poor patients. The test undertaken in land showed that major ingredients include anti malarial components.

**Arsenic Tragedy:** Arsenic containing gas is lewisite. Lewisite is used during the world war second by British. Arsenic has been a traditional poison for ages. Even a small dose of arsenic causes toxicity and high concentration leads to death of animals. Arsenic consists of highly reactive poisons, which is used in the war, which causes death of several individuals in war.

**Paracetamol Tragedy:** Toxic chemical in paracetamol kills 25 Bangladeshi children in 1990. At least 25 children in Bangladesh have died after taking paracetamol syrup. The syrup became toxic after manufacturer replaced one of

its ingredients with cheaper alternatives. Experts found traces of toxic chemical in paracetamol syrup produced by local drug firm that suspected to have killed at least 25 children. The drug makers added the toxic industrial chemical because it is 10 times cheaper than propylene glycol, which is used as a solvent in paracetamol syrup. Chemical used in textile dyeing factories dissolved in drug.

### **DRUG OVERDOSE / DRUG ACCIDENTS**

Drug overdoses can be accidental or intentional. They occur through the misuse of illicit drugs, used to get high or when a person takes more than the medically recommended dose of a prescription or over the counter drugs. This may occur suddenly when a large amount of the drugs is taken at one time or gradually as a drug builds in the body over a longer period of time. Prompt medical attention may save the life of someone who accidentally or deliberately takes an overdose. Drug overdose is a significant cause of drug accident. It can also be used as a form of suicide. Drug alter brain chemistry. They impair cognitive and physical abilities. Alcohol and other drug affect impulse control, motor function, reflexes, judgment and decision making. Drug overdose leads to injury and death. Overdose accidents occur when to much the drug or drugs in a person's bloodstream. The body can no longer break these drugs down or safely process and eliminate them severe and serious physical reaction occur results in death.

#### **Example,**

Analgesic overdose attempt are most common because of its availability of over the counter substance. Overdose also takes place when mixing medications in a cocktail with one another or with alcohol or with illegal drugs. They may be confusion over

whether death is suicidal or accidental

Acetaminophen or paracetamol death: on June 30<sup>th</sup> 2009, FDA Advisory Panel recommended that Vicodin and another pain killer, Percocet removed from the market because they have allegedly caused over 400 deaths a year. The problem with paracetamol overdose is liver damage. These two drugs in combination with other drug like NyQuil and thereafter can cause death by multiple drug intake or drug overdose. Drug and alcohol use are dangerous even if individuals never get on the road. Workplace accidents are often related to substance use. The National council on Alcoholism and Drug Dependence shares that alcohol has the following effects on workplace safety: Workers with alcohol problems were 2.7 times more likely than workers without drinking problems to have injury- related absences. A hospital emergency department study showed that 35 percent of patients with an occupational injury were at risk drinkers. Breathalyzer tests detected alcohol in 16% of emergency room patients injured at work. Analyses of workplace fatalities showed that at least 11% of the victims had been drinking. Drugs and alcohol cause workers to be less aware. They cause them to be less concerned for their and others' safety. Drugs and alcohol slows reaction time. They put coworkers and careers at risk

**DRUG POISONING:** Poison is a substance which endangers life by severely affecting one or more vital functions. Not only drugs but other household and industrial chemicals, insecticides etc are frequently involved in poisoning. Poisons are substances that cause temporary and permanent damage. It is too much absorbed by the body. It can be swallowed, inhaled or injected or absorbed through the skin. Drug

poisoning can also occur due to overdose of prescribed drugs, OTC drugs or illegal drugs. The effects of poisoning will be different depending on the type of drug and how the person has taken it, such as swallowing, inhaling or injecting. It can be accidental, occupational, and suicidal. Specific antidotes such as receptor antagonist, chelating agents or specific antibodies are available for treating poisons.

#### **Classification of Poisons**

Corrosives: Strong Acids: Sulphuric acid, nitric acid, hydrochloric acid

Strong Alkalis: caustic potash, caustic soda, Irritants, Inorganic- Non Metallic, Organic, Herbal

**DRUGS IN SUICIDE:** "Suicide is an act of intentionally causing one's own death." Risk factors includes mental disorders such as depression, bipolar disorders etc. Over dose of drug may also lead to suicidal tendencies. In most of the cases, drug addict attempt suicide by overdose of drug that is an overdose or combination of drugs and tablets. Affective disorders in general and particularly depressed mood are a risk factor for suicidal behaviors in general population. Another very affective fact is when it comes to suicide attempt is the drug used. **Examples:**

**Heroin and Sedative Drugs:** These cause suicidal tendencies'. Pro-suicidal effect of these drugs is due to psychiatric disturbance caused by side effect. Cocaine and Methamphetamine: The misuse of these drugs has highly correlation with suicidal tendencies. Cocaine risk more withdrawal phase. Drug overdose: Overdose is a method of suicide which involves taking medications in doses greater than the indicated level. An overdose is often expressed as the preferred method of dignified dying among members of right-to-die societies. A poll among members of right- to-die society exit international suggested 89%

would prefer to take pill than use of a plastic exist bag, a carbon monoxide generates or use of slow euthanasia. Death by inhalator however is more common method preferred. A typical drug overdoses was random prescription and over the counter substances. In this case death is highly uncertain and attempt may lead a person alive but with severe organ damage. Analgesic overdose attempt are among the most common due to easy availability of over the counter substances. Overdose also takes place when mixing medication in a cocktail with one another or with alcohol or illegal drugs. This may leave confusion over whether death is suicidal or accidental. Antidepressants Are Often Ineffective and May Cause Increase Suicidal Techniques. Treating depression with antidepressants may improve the conditions, but may causes increase in risk of suicide. Studies continue to show antidepressant drugs are no more effective than a placebo, and in some cases less effective. A study published in "January 2010" issue of JAMA concluded there is evidence that SSRIS (a popular group of antidepressant that include Prozac-panil, etc.) have any benefit to people with mild to moderate depression. SSRIS were found to be 33% effective, just like sugar pill but with far more adverse effect, including violence, suicidal tendencies. There is much evidence that antidepressants intensify violence, both suicidal and homicidal. The FDA suggest patients of all ages who started taking antidepressants should be carefully monitored for clinically worsening suicidality or unusual change in behavior. Acetaminophen or Paracetamol Death: On June 30th 2009, FDA advisory panel recommended that Vicodine and another pain killer Percocet be removed from the market because they have caused over 400 deaths a year. The two drugs in combination with other drug like Nyquil and thereafter can caused death by multiple drug intake or drug over dose.

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