

Unnatural self-poisoning suicidal deaths, implications in forensic toxicology

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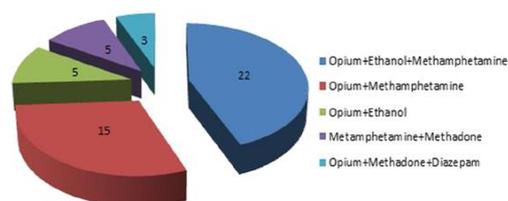
Abstract (300 word limit)

Suicide is a complex, multifaceted problem and is categorized as one of the major causes of unnatural deaths in all age groups worldwide. Asian countries account for about 60% of global suicides. Iran had shown the highest increase rate of suicidal deaths among Eastern Mediterranean Region and Islamic countries. Intentional poisoning is the third method of suicide following hanging and self-burning in Iran. Therefore we undertook a retrospective analytical study to investigate toxicology findings in completed suicides referred to Legal Medicine Organization, Tehran, Iran to define the most prevalent drugs and poisons in postmortem samples of self-poisoning completed suicides in a five year study Period (2011–2015). All self-poisoning suicidal deaths during 2011–2015 were included in the present study. Death certificates of cases were reviewed and extracted data such as age, gender, marital status, employment status, forensic toxicology results for licit and illicit drugs, alcohols and poisons were entered into the designed questioners by a trained forensic toxicology specialist. As expected more than one drug was used by subjects to commit suicide. The most prevalent toxic substance that was detected in postmortem samples was phosphine gas liberated from aluminum phosphide or zinc phosphide tablets or powders.

The total number of self-poisoning suicidal deaths was 674 with the predominance of men.

Self-poisoning suicidal deaths were highest in the 21–30 years age category. As for occupation the highest rate of completed suicide was among unemployed subjects. A higher frequency of poisoning was seen in single cases. Spring and autumn were the most troubling seasons regarding self-poisoning suicidal deaths. Meanwhile the results of the present study will help to better tailor preventive efforts regarding restriction for the access to suicidal means.

Image



Pattern of polysubstance use related death cases in self-poisoning suicidal deaths, Tehran, Iran, 2011–2015

Recent Publications (minimum 5)

1. Kordrostami R, Akhgari M, Ameri M, Ghadipasha M, Aghakhani K. Forensic toxicology analysis of self-poisoning suicidal deaths in Tehran, Iran; trends between 2011-2015. *Daru Journal of Pharmaceutical Sciences* 2017 Jun 13;25(1):15.

Biography

Akhgari Maryam, Pharm D, PhD has her expertise in forensic and analytical toxicology as head of forensic toxicology department, Tehran, Iran since 2004. Her responsibility is to decide about drugs and poisons related deaths, postmortem forensic toxicology, seized materials analysis and analytical method validation. She is one of the members of Legal Medicine Research Center, Legal Medicine Organization, Tehran, Iran as associate professor with about 40 published papers.
