

ABSTRACT

RETROSPECTIVE AUTOPSY ANALYSIS ON PATTERN OF FATAL CASES OF POISONING IN GOVERNMENT RAJAJI HOSPITAL, MADURAI

AIM AND OBJECTIVES :

To study the frequently used poisonous substance, to assess the distribution of a poisoning among individual of different age and sex, to observe the influence of literacy and socio-economic status on poisoning, to evaluate the occurrence of poisoning under marital status and various family patterns, to take an inventory of various reasons of consumption of poison.

MATERIALS AND METHODS : The subjects of the study were the 433 poisoning victims whose autopsy was done in the mortuary of the Government Rajaji Hospital for post mortem examination during the period of study.

The victims were subjected to autopsy. The various internal and external findings that were observed during the procedure were noted and the necessary specimen were sent for the chemical analysis to Regional Forensic Science Laboratory (RFSL), Madurai.

The detailed history regarding the poisoning cases that were brought dead was obtained from the inquest report from the relevant investigating police officer and also the relatives of the deceased.

INCLUSION CRITERIA : Those victims of poisoning whose body was autopsied in the mortuary of Government Rajaji hospital, Madurai. Inquest report and other relevant police documents, Optic lens for magnification, Metric tape for measurement, Equipment for photography, A workstation for autopsy, Autopsy certificate, Records of hospitalization and treatment, if any, Report of chemical analysis from Regional Forensic Science

Laboratory (RFSL), Madurai. The bodies of the deceased were examined post mortem using Otto Saphhir's technique for Autopsy.

RESULTS : The age of the deceased ranged from 4 to 97 yrs. The peak incidence of death from poisoning was observed in age group 21-30 yrs panning 119 cases which accounted for 27.48% all cases. On taking into account the literary qualification of the deceased under study, it was established that the illiterate victims were the most common to be exposed to poisoning. There were 271 cases (62.59%) who were illiterate while the literate accounted for 157 cases (36.26%) only. The marital status of the various victims were analyzed and the inference that the majority of the deceased were married. They numbered 281 which was 64.90% of the total study group. There were also 97 cases who were never married and they made up 22.40%.The family of the deceased when placed under scrutiny revealed that the individuals in Nuclear family, which numbered 413 (95.38%) were more prone to poisoning than those in the joint family. Only the remaining 20 (4.62%) belonged to joint family.The socio-economic status when taken as a criteria for classification lead to the observation that the people in low socio-economic status were 352 (81.29%) in number and was far more than people in medium (68 cases – 15.70%) and high (13 cases-3%) statuses. Of the people who consumed the poison, it was found that 237 (54.73%) people died within a day, 146 cases (33.72%) were prone to die within a week. Thus 88.45% of the victims died within a week of consuming poison. From a spectrum of poisons that the deceased were exposed to it was noted that organo phosphorous compounds were the most frequently ingested poison. 279 people (64.43%) were the victims of this poison. Aluminum and zinc phosphide were the next in line claiming 25

cases (5.77%) each. A look at the manner of death due to poison exposure revealed that a whopping majority of 409 cases (94.46%) were suicidal. Accidental cases were only 24 (5.54%) in number which constituted of mostly children and intoxicated individuals. The comparison between the positive and negative results of chemical analysis report came up with 215 (49.65%) positive cases and 218 (50.35%) of negative cases. A Compilation of various reasons for ingestion of poison has established that 178 individuals (41.11%) turned to poison out of a physical illness. 88 cases (20.32%) were people with marital dispute and 57 people (13.16%) turned towards poisoning during an economic crisis.

CONCLUSION : An overall look at the autopsies of the cases of poisoning led to the conclusion that the people were more prone to consume poison in the third and fourth decade of their life when they are at their maximum productivity and hence the most stressed. Among the study population males dominated in number thus reiterating the stress factor and hence seeing poison as a way out. The illiterate people were found to most frequently ingest poison than the literate population either ignorantly or knowingly for reasons that shall be discussed later. The observation of Marital status of the deceased helps conclude that married individuals consume poison more frequently than unmarried population. This phenomenon can also be attributed increased emotional or financial burden. A look at the families of the deceased conclusively tells that majority of death due to poisoning was found in the nuclear families. A further probing of socio economic status has established that the individuals in the low socio economic status often sought poison as a way out from their problems. The incidence of poisoning markedly decreased with increase in the status of the individual.

The majority of victims of poisoning did not survive the poison more than a day. Many others were dead within a week. The notoriety of poison was thus very clearly seen. Organo phosphorous compounds were the poison of choice for most individuals thus claiming a colossal number of lives among the subject population. Suicide was the dominant manner of death in almost all deceased. Very few accident cases were seen, although it was a pristine fact that most people intentionally consume poison as a way out of their worries and problems. A full enumeration of the various reasons claimed for the individual to consume poison, the collection of history revealed that most people poisoned themselves due to a physical illness. However people turning to poison due to marital dispute or an economic crisis was also a common occurrence.