



Case Report

Suicidal Death in Carbolic Acid Poisoning in Geriatric Age Group- A Rare Case Report

Authors

Alakesh Halder¹, Niloy Kumar Das², Tapas Sinha³, Ashok Kumar Samanta⁴

^{1,4}Department of Forensic Medicine, ESI-PGIMSR, ESIC Medical College, Joka, Kolkata, WB, India

²Department of Pediatric Medicine, ESI-PGIMSR, ESIC Medical College, Joka, Kolkata, WB, India

³Department of Forensic Medicine, Medico legal expert. DM Sadar Hospital, Purulia, WB, India

Corresponding Author

Dr Alakesh Halder, MD

Sonarapur, Paschim Das Para Pin- 700 150, WB

Telephone: 9804642412 [Mobile], Email: dralakeshhalder@gmail.com

ABSTRACT

Deaths due to poisoning are not uncommon in India. Cases of carbolic acid poisoning were more frequent in the past than today. Approximately 55% of those reported have terminated fatally. Ingestion of carbolic acid for suicidal purpose is an uncommon mode of poisoning in the Indian subcontinent. Accidental ingestion of carbolic acid by children is common. But uses of carbolic acid for suicidal purpose in geriatric age are rare. The present case is about a 68 yrs old male, a patient of mental depression with history of several suicidal attempts previously, who was found lying on the floor with unconscious state. He was brought to the hospital and admitted subsequently on 16.08.2013 at 2.30 p.m. Unfortunately the person was died on the same day at 6.30 p.m. History from family members, the neighbours, inquest report, photographs and meticulous post-mortem examination reveals that the person was died due to the effects of carbolic acid poisoning.

Key Words: Suicide, Carbolic acid, mental illness.

INTRODUCTION

Carbolic acid denatures and precipitates cellular proteins and thus may rapidly cause poisoning^[6]. They are metabolized by conjugation and oxidation^[7].

Death due to carbolic acid poisoning is a serious and formidable health problem in developing countries. Suicide by poisoning is among the most dramatic of all forms of suicide. Perhaps more than any other form of self-destruction, the act of suicide by poisoning has a long documented history of powerful cultural meaning and mental

impact across much of the world. Poisoning by acid is usually an outcome of mental illness. Moreover, high population density, illiteracy and poverty are the main demographic factors associated with a high risk of poisoning. The education and social back ground of the patient and religious belief played a minor role for choosing this method of suicide.

CASE HISTORY

A 68 yrs old Hindu male was found lying at the floor of his residence with history of ingestion of

dark brown colour liquid substance with pungent odour. During local enquiry It was learnt that he was suffering from mental depression for last 3 years for his family problem issue with history of repeated suicidal attempts previously and treated with antipsychotic drugs. Then he was taken to the N.R.S.M.C&H and declared as brought dead at 11.20 pm on 10th October 2013 and the body was sent for postmortem examination.

AUTOPSY FINDINGS

EXTERNAL

Height 5'4", Average built, Scalp hair 1.5" white. Rigor mortis was present all over the body, venepuncture over right wrist. Grayish corrosion at the angle of mouth, excoriation of lower lip and chin blackish in color with characteristic phenolic odour around the mouth. Tongue is white and swollen. Grayish and blackish discoloration front of the neck and front of the chest. No external injury is seen.

INTERNAL

Stomach is swollen and leather bottle in appearance. Weight of the stomach is 100 gm with white pungent smell fluid. Stomach wall is thickened and hardened with marked corrosion. Blackening and thickening of gastric mucosa with submucosal hemorrhage at places. Weight of the Heart is 300 gm with presence of atheroma. Both the Lungs are edematous and congested.

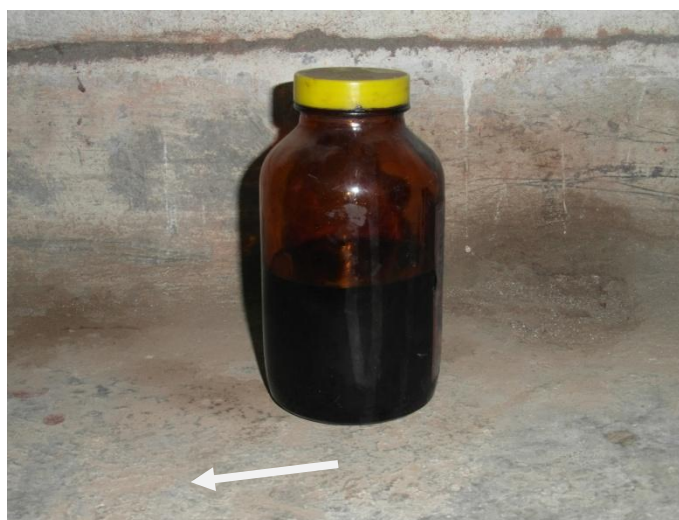


Figure 1 Place of occurrence showing bottle containing carbolic acid



Figure 2 The body showing excoriation of lower lip and blackish discoloration over front of the chest



Figure 3 Stomach showing sub mucosal hemorrhage and thickening of gastric mucosa



Figure 4. Thickening and leathery looking appearance of mucous membrane of stomach



Figure 5. Mucosa of the esophagus (tough and grayish-white)

DISCUSSION

Phenol is absorbed very quickly (about 30 min). It is quickly excreted into urine ^[6]. The toxicity of conjugated forms of phenol is less than that of free compounds. Therefore, the free phenol concentrations in the blood can be regarded as an index of poisoning ^[7]. The average fatal dose is 25-50 ml of household phenol.

The signs of GI irritation as esophagitis and GI bleeding occur within one week of exposure ^[4]. Dark urine may be produced following ingestion of phenol. Acute renal failure may also occur ^[1]. Dermal exposure produces dermal inflammation, erythema, and painless blanching. However, once pain becomes evident, serious burns, corrosion, and necrosis have already occurred. Effects are worse if the affected sites are bandaged ^[1,4]. Santa *et al.* have reported a case of hemolytic anemia following accidental ingestion of phenol in 2003 ^[5]. On autopsy, pulmonary edema is reported ^[4].

A previous psychiatric history among attempted suicidal poisoning is found to be uncommon. Different study shows a 40% prevalence of previous psychiatric illness among persons attempting suicide ^[8]. The toxicological hazards of phenol and its derivatives must never be underestimated and mishandling of these substances can easily result in serious consequences. A disturbing finding is that some persons with social problems may resort to self-violation as a method of expressing their anger and dissatisfaction at their current social state.

These types of people do not realize that this method of poisoning is a sure way to commit suicide and the fatal outcome resulting from ingestion of carbolic acid, history of taking antipsychotic drugs for 2 years with repeated suicidal attempt previously suggestive of suicidal death due to effects of carbolic acid poisoning.

CONCLUSION

Carbolic acid is largely used as an antiseptic, disinfectant and preservative. It is used in the preparation of many disinfecting powders also. Being easily procurable, several cases of accidental and suicidal poisoning by carbolic acid have occurred on account of its powerful odour and taste. Uses of carbolic acid for suicidal purposes is uncommon, though it is not rare sometimes used for murdering children and infant. Although unconfirmed by phenol excretion tests, circumstantial evidence would seem to justify a case of suicidal poisoning. Strict precautionary measures are, therefore, advised when using this compound.

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