# **Scholars Journal of Medical Case Reports**

Sch J Med Case Rep 2015; 3(2):145-148 ©Scholars Academic and Scientific Publishers (SAS Publishers) (An International Publisher for Academic and Scientific Resources) www.saspublishers.com ISSN 2347-6559 (Online) ISSN 2347-9507 (Print)

DOI: 10.36347/sjmcr.2015.v03i02.025

# Vitriolage and its Current Law: Two Case Reports

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Abstract: Crimes by throwing corrosives (vitriolage) are increasing day by day and attracting national and international news media now a day. Majority of acid attack victims are women and many of them are in the prime of life. Many of such incidents occurred across India every year and many go unreported. The present article consists of two heinous crime of vitriolage in both sex of our society and its related current legal scenario in India. These two cases one male and other female belong to young age and victimized by throwing sulphuric acid. They presented to the hospital with the typical features of acid burn over the face and other part of body. In both cases the cause is out of jealousy and or revenge. Punishment for vitriolage is now based not only upon causing hurt or grievous hurt but also by mere throwing or attempting to throw acid.

Keywords: Vitriolage, Both sex, Current legal scenario, Punishment.

#### INTRODUCTION

Corrosives or caustics is a substance which erodes and destroy any surface it comes in contact with. It is almost exclusively locally acting and has few systemic effects with exception of generalized shock. The mechanism of action of corrosives is a) Extraction of water from tissue, b) Coagulation of tissue protein, c) Conversion of hemoglobin to haematin. Acid is hydrogen containing substance which is desiccant and produce coagulation necrosis and eschar formation on dermal surface. When corrosives dilutes it behaves like irritants [1].

Acid throwing, also called as Acid attack or Vitriolage is a form of violent assault [2]. It is defined as a act of throwing acid on to the body of a person with the intention of injuring or disfiguring her/him out of jealousy or revenge resulting in burning and dissolution of the victim's skin, connective tissue and even bones [3]. The long term consequences of these attack include blindness and permanent scarring of the face and body, along with far reaching social, psychological and economic difficulties [2]. The purpose or motive is to disfigure the face, destroy the vision or to cause bodily injury or disfigurement of body or ever destroy the costly garments or to take revenge. Victims are objects of hatred, rivalry, jealousy or enmity. It consists of throwing of strong sulphuric acid or any concentrated mineral acid, Corrosive Alkalis, Carbolic Acid or Acrid juice of semecarpus over face or body of the victim [4]. This ghastly practice had its origin in the industrial

derived from oil of vitriol, other acids are also employed for vitriolage. Vitriolage is a fairly common crime in India, though it is regarded as a serious offence and carries stiff punishment now a day after the implementation of the Criminal Amendment Act in 2013. In case of vitriolage there is discoloration and staining of the skin and clothing along with trickle mark

unrest of Glasgow 1820s [1]. Sulphuric acid is

commonly used hence the term vitriolage which is

staining of the skin and clothing along with trickle mark over the body. There is ulceration and scar formation over the contaminated area of the body. Due to damage of nerve ending these are comparatively painless lesions with absence of vesications and redline of demarcation [5, 6]. Sometimes it causes local burning pain. Wide area of body may be involved with evidence of spilling or splashing or pouring of the acid. These injuries heal slowly with scar formation and thus cause permanent disfiguration when thrown to face or other body parts. There is loss of eye sight or blindness if thrown to eye and there is contracture with limitation of movement if it is near a joint that may resist the function of the joint grossly. Thus if the victim survives with any of such outcomes the act of vitriolage may amount to the causation of grievous hurt. There may be brownish black scab formation at the site of acid burn. Death is rare, but may result from shock, toxemia, exhaustion or infection, when there is involvement of extensive area. Stain present on skin and clothes with blackish brown color in sulphuric acid injury and yellow in nitric acid injury [4]. Presence of chemical substance in stain like the acid or alkali can be diagnosed by litmus test. Sodium carbonate test detect fresh acid stain over clothes by putting few drops of sodium carbonate which produces effervescence by the acid stain [7].

Management of the patients are done by removal all contaminated clothing and irrigation with water or saline over the affected parts for at least 15 - 30 min. Magnesium oxide or carbonate applied as thick paste over the affected area. Eye injury should be dealt with retraction of eye lid and irritation for 15-30 min with normal saline or ringer lactate or water; subsequently few drops of caster or olive oil are to be dropped into eye. Corneal ulcers are to be treated with atropine ointment, hydrocortisone and antibiotic. For pain analgesic like morphine may be given. Respiratory distress may be due to laryngeal edema and can be treated with 100% oxygen inhalation and if needed cricothyrotomy. Surgical intervention if needed could be done later on using plastic surgery [3, 8].

#### **CASE REPORT**

#### Case 1

A young girl of 20 years old, student by profession encountered a heinous acid attack early in the morning about 9 AM. While she was coming from her tuition to home on the way an unknown person threw a glass container, containing corrosive over her face. Immediately there was intense burning sensation over face, back, and other body parts where the corrosive liquid comes in contact. She was initially treated at local hospital and then referred to SCB Medical College and Hospital for further management. During the course of treatment she was referred to Department of Forensic Medicine & Toxicology for medico legal evaluation.

On examination of the affected part of victim, there was brownish black discoloration and staining of the skin over right side of the face, neck, and scalp with bleaching of right side scalp hair. There were trickling marks over the right upper limb. Some parts there were healing of the skin with fallen scab. No scarring was detected at the time of examination.

#### Case 2

A young male of 25 years old got an acid attack at afternoon and admitted to SCB Medical College & Hospital for treatment. On the day of incident the victim was attacked by a group of people for some past conflict to take their revenge. They threw a glass bottle which contains some acid on to the victim's face, but it stroked on the bike he was riding and the acid dispersed over whole body. During the course of treatment a bed side call for medico legal evaluation was made to the Department of Forensic Medicine & Toxicology. On examination his skin were burnt along both the upper and lower limbs. Spilling of acid burn over face and neck region with multiple punctuate burn marks were found. The burnt areas of the skin were looking brownish black in color and it was stained. The clothes were also burnt, stained and torn which were produced for examination.

Both the two cases were reported as the injuries were due to some corrosive agents such as sulphuric acid of duration about 5-7 day at the time of examination. In both these cases consent from the victims were taken for photography and it future publication or presentations keeping the identification masked.

#### **Ethical Clearance**

Consent for photography and its publication were taken from the victims.

#### Photographs: Case 1



Fig. 1: Acid burn over right side face, neck with bleaching of scalp hair



Fig. 2: Trickle mark over right upper limb

Photographs: Case 2



Fig. 3: Spilling of acid over face



Fig. 4: Acid burns over right palm

## DISCUSSION

Both the cases we presented were victims of acid attack due to some revenge and/or rivalry. On examination both the victims showed typical discoloration suggestive of sulphuric acid as the probable causative agent. Time since injury is about 5-7 day at the time of examination.

As per Thomas Reuters Foundation survey, India is the fourth most dangerous place in the world for women to live in as women belonging to any class, caste, creed or religion can be victim of this cruel form of violence and disfigurement, a premeditated crime intended to kill or maim her permanently and act as a lesson to "put her in a place [9].

In India acid attack on women has been rising. Acid attacks are often referred to as a "crime of passion" fueled by jealousy and revenge. Acid attack in India has a gendered aspect to it. Analysis of news reports revealed at least 72% of reported attacks involved women. As analyzed by the news media in India, 34% of the cases are due to rejection of marriage or refusal by women for sexual advances. Dowry disagreement have shown spur to these acid attack. Land, property and business dispute account for 20% of acid assault in India between 2002-2010 [10]. The most notable effect of an acid attack is lifelong bodily disfigurement and many physical challenges. The assault survivor faces many mental health issues like anxiety, depression, lowered self esteem and increase in consciousness along with some victim become handicapped and are dependent on their family.

### Legislation in India related to Vitriolage

Many countries have begun new law and legislation in this crime. India higher court has ruled that authority must regulate the sales of acids [11]. The legal provision under which the accused is charged are all under Indian penal code, 1860(IPC) like section 319 (hurt); section 320 (grievous hurt); section 322(voluntarily causing grievous hurt); section 325(punishment for voluntarily causing grievous hurt); section 326 (voluntarily causing grievous hurt by dangerous weapon or means) [12].

Insertion of new sections in IPC for acid attack took place after the Delhi tragic incidence on December 2013 i.e. section 326A (voluntarily causing grievous hurt by use of acid, etc.) and section 326B (voluntarily throwing or attempting to throw acid)

**326A.** Whoever causes permanent or partial damage or deformity to, or burns or maims or disfigures or disables, any part or parts of the body of a person or causes grievous hurt by throwing acid on or by administering acid to that person, or by using any other means with the intention of causing or with the knowledge that he is likely to cause such injury or hurt, shall be punished with imprisonment of either description for a term which shall not be less than ten years but which may extend to imprisonment for life, and with fine: provided that such fine shall be just and reasonable to meet the medical expenses of the treatment of the victim: Provided further that any fine imposed under this section shall be paid to the victim.

**326B.** Whoever throws or attempts to throw acid on any person or attempts to administer acid to any person, or attempts to use any other means, with the intention of causing permanent or partial damage or deformity or burns or maiming or disfigurement or disability or grievous hurt to that person, shall be punished with imprisonment of either description for a term which shall not be less than five years but which may extend to seven years, and shall also be liable to fine.

Explanation 1: For the purposes of section 326A and this section, "acid" includes any substance which has acidic or corrosive character or burning nature, that is capable of causing bodily injury leading to scars or disfigurement or temporary or permanent disability.

Explanation 2: For the purposes of section 326A and this section, permanent or partial damage or deformity shall not be required to be irreversible [13].

# CONCLUSION

Acid attack is a more serious crime as it destroys both physical and mental health and it is no meaning lesser than the rape victim. Acid attack would appear to be a worse offence and should carry a great penalty to the accused with strict and severe punishment. It is only through a revival of cultural values, moral regeneration, strengthening of holistic education and use of publicity that change can be made in the society. It is more important that the male members of social media should play a proactive role in ensuring the safety of the women. The superior authority must strictly regulate the sale and use of acid. Doctor dealing with the acid attack victim has a professional, ethical, legal, and social obligation to treat and respect the physical, social, mental and psychological feelings of these patients. The media can also help in public and nationwide changes against the crime and its perpetrator. With the hope that the legal implementation in respect to acid attack will improve in presence of the new strict legislation along with reorganization of the victim's problems that help them in every respect to go into the normal life.

#### ACKNOWLEDGEMENTS

- The two victims of acid burn and their relatives.
- Mr. B. Murti Rao (Clerk cum DTP Operator, Dept. of F.M.&T., IMS & SUM Hospital, Bhubaneswar.)

#### REFERENCES

- Pillay VV; Corrosive (Caustic Poisons). Modern Medical Toxicology, 4<sup>th</sup> edition, Jaypee, New Delhi, 2013: 39-40.
- Mittal P, Dhattarwal SK; Vitriolage: The curse of human origin. Medical Science, 2014; 6(21): 61-64.
- Vij K; Corrosive Poisons. In Text Book of Forensic Medicine and Toxicology Principles and Practice, 5<sup>th</sup> edition, Elsevier, India, 2003: 462.
- Mukherjee JB; Toxicology: Vitriolage. In Forensic Medicine and Toxicology, 4<sup>th</sup> edition, Academic Publishers, Kolkata, 2011: 805-806.
- Biswas G; Corrosive Poisoning. In Review of Forensic Medicine and Toxicology, 2<sup>nd</sup> edition, Jaypee, New Delhi, 2012: 428-429.
- Nandy A; Corrosive Agents. In Principle of Forensic Medicine, New Central Book Agency (P) Ltd., Kolkata, 2010: 450-452.
- Pillay VV; Caustics. In Text Book of Forensic Medicine and Toxicology, 16<sup>th</sup> edition, Paras, Hyderabad, 2011: 425-427.

- Reddy KSN, Murthy OP; Corrosive Poisons. In The Essentials of Forensic Medicine and Toxicology, 33<sup>rd</sup> edition, Jaypee, New Delhi, 2014: 532.
- Beigh's Blog; Acid Attack responsible who? 2014. Available from https://idreesbeigh.wordpress.com/category/wo men/
- 10. Bhullar DS; Acid Throwing: A Cause of Concern. JPAFMT, 2013; 13(2): 60-62.
- 11. DS Bhullar; Acid Throwing: A Cause of Concern in India. Indian Journal of Clinical Practice, 2014; 24(10): 989-990.
- Reddy KSN, Murthy OP; Medico-legal aspects of wound. In The Essentials of Forensic Medicine and Toxicology, 33<sup>rd</sup> edition, Jaypee, New Delhi, 2014: 294-295.
- 13. Ministry of Law and Justice; The Criminal Law (Amendment) Act, 2013. The Available from http://indiacode.nic.in/acts-inpdf/132013.pdf