

## Negative viscera report and its medicolegal aspects

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### Abstract

The obscurity of failure to find poison in viscera of the individual whose death is due to poisoning is a routine problem in India and the reasons of it are many. Many poisons apart from corrosives and irritants do not show characteristic post-mortem signs and one of the biggest issues is that only common poisons are tested. This factor combined with the lack of legislation on procedures governing the collection and storage of the samples often leads to a negative FSL report even when there are clear signs of poisoning. This makes it very difficult to ascertain the exact cause of death in the post-mortem report. Further, there are occasions when the FSL report is not brought on record even though the samples have been sent to the Chemical Examiner for analysis. FSL report, though not mandatory in all cases, plays an important role where the allegations pertain specifically to death by poisoning. The absence of the FSL report or a negative FSL Report weakens the prosecution case substantially as not every case has adequate circumstantial evidence to prove that the deceased was administered poison by the accused. The conclusion of cause of death in a case where the death is due to poisoning but viscera report gives negative result, poses confusion to the autopsy doctor, law and public. The salient points covering various aspects of negative viscera report with special reference to the false positive or false negative results and its effect on criminal judicial system in conviction and acquittal along with suggested remedies are to be discussed here.

**Keywords:** Poison, Autopsy, Negative viscera report, Chemical analysis, FSL.

### Introduction

Cases of poisoning are common in India. Poison can be administered not only orally but also hypodermically or intravascularly with the help of a syringe. In many cases where the death of the deceased results from poisoning, it is difficult to successfully isolate the poison and recognize it. There is no precise definition of poison in India but under the Indian Penal Code (Section 324, 326 and 328 IPC), the law describing the word poison are 'any poison or any stupefying, intoxicating, or any wholesome drug, or other thing' or any corrosive substance or any substance which is deleterious to the human body to inhale, to swallow, or to receive into the blood'. With regard to 'any poisonous substance' used in section 284 of IPC, all the law requires that the substance is such as, if taken, is likely to endanger human life, or will cause hurt or injury to any person. Failure to find poison in viscera of the individual whose death is due to poisoning is a routine problem in India. FSL report, though not mandatory in all cases, plays an important role where the allegations pertain specifically to death by poisoning. The absence of the FSL report or a negative FSL Report weakens the prosecution case substantially as not every case has adequate circumstantial evidence to prove that the deceased was administered poison by the accused. In many cases, the viscera report is negative or detects the poison in the quantity not sufficient to cause death which puts the doctor in a fix as police expect him to give the cause of death so as to reach a logical ending to the probe. In the absence of FSL report in cases of suspected poisoning, the Medical Examiner either postpones giving a certain cause of death till the receipt of the FSL report or gives the cause of death without mentioning the trigger of such cause.

### Causes of negative viscera report:<sup>1,3</sup>

#### Procedural based

1. the lack of mandatory procedures for collection and dispatch of samples
2. forensic team usually not the first responder at the scene of crime
3. strict chain of custody not followed
4. neither any rules nor a time frame prescribed for the samples to be sent to the FSL, the test and the receipt of the report
5. the FSL report not brought on record even years after the samples have been sent to labs
6. Tempering of viscera during preservation and in preserved bottles with vested interests and wrong motives.
7. The absence of any legislation in place because of which none can be held accountable for lapse

#### Sample based

1. Sample quantities received by FSL much less than those prescribed for optimal analysis
2. Required quantity and quality of preservative not used during sampling
3. Appropriate temperature, time and container not maintained for preservation of sample
4. Difficulty in detection of poison due to vomiting, purging or elimination from the system by the kidneys or due to prolonged stay in the hospital immediately prior to the death
5. Not sending stomach wash (gastric lavage) and vomit along with viscera for examination
6. Some organic poison decompose due to improper preservation or temperature control

7. Site of sample collection on the body also play an important role
8. In postmortem decomposition, many poisons present in the tissue undergo chemical changes which cannot be detected in routine toxicological analysis

#### Lab based

1. the limited number of FSL in the country
2. FSL toxicology reports in India are generally qualitative report except the alcohol.
3. Therapeutic substance overdoses and many new drugs have significantly low toxic and fatal levels, not detectable in many labs
4. Many new varieties of drug abuse used for drug addiction goes unnoticed
5. FSL labs using outdated methods of analysis, preservation of the wrong material for interpretation of clinical poisoning along with absence of new methodologies, poor laboratory quality assurance, non accreditation and reference standards.
6. Lack of expertise, qualified and experienced scientists.
7. Some lab donot test for enzymes and toxins
8. Non-availability of sophisticated instruments
9. Use of wrong analytical techniques
10. Serological labs are non-functional in many FSL
11. Labs unable to detect and quantify various important metabolites of many poisons

#### Drugs or poisons not detected in routine analysis are

It has been observed in many researchers in routine practice that too polar like INH, Hg, Iron, lead, ethyl glycol, volatiles like solvent, aromatic or halogenated hydrocarbons, gases, plant or fungal alkaloids, toxic anions like thiocyanate, fluoride and nitrites, haemoglobin like substances, diuretic, radioactive compounds, antibiotics, NSAIDs except aspirin & paracetamol, calcium channel blockers & Beta blockers and new substances like busiprone are not detected by conventional toxicological screening.

#### Recommendations:<sup>3</sup>

1. Mandatory procedures for collection and preservation of such evidence;
2. Establishment of the chain of custody to be followed;
3. Re-evaluation of structure of the FSL, minimum personnel to be hired, the minimum equipment required for optimal analysis; and proficiency tests of FSL by a national body such as National Accreditation Board for Testing and Calibration Laboratories (NABL) in India;
4. Prescribed time-frame for sending the samples from the concerned Police Station to the FSL, testing and the receipt of the report;
5. Mandatory FSL report in suspected cases of death by poisoning.
6. The legislation should make it mandatory to not file a charge-sheet until the FSL report is received;
7. Presence of a Medical Officer at the scene of crime should be made mandatory;
8. Increase in the number of FSL per state. There are currently 28 State / Union Territory FSL along with their Regional FSLs (32 RFSLs) and Mobile FSLs (144 MFSLs) which are not enough to handle the number of cases that require examination;
9. Establishment of analytical toxicology labs and hiring of required professionals for the same at tertiary care centres
10. Holding the concerned officers accountable for not following the procedures laid down in such legislation and the procedure for the same;
11. Procedures to be followed by the medical staff in hospitals with respect to collection of biological excretions such as vomit and urine at the time of treatment of the patient of suspected poisoning; and
12. Training of the Judges and the court officers to better understand forensic science evidence.

#### Table of few criminal cases in which toxicology chemical analysis was used/referred for recording conviction or acquittal<sup>4</sup>

S. No	Case No. & Year	Offence U/sec	Fate of viscera report	Result of the case
1.	Sher Singh v. State (11.01.1995 – DELHC) MANU/DE/0136/1995	302 IPC	Positive	Acquittal
2.	Shyam Sunder v. The State (18.04.1996 – DELHC) MANU/DE/0622/1996	302/34 IPC	Positive	Conviction
3.	Krishnamurthy v.State by Ashok Nagar Police, Bangalore (29.05.2000 – KARHC) MANU/KA/0448/2000	302/394 IPC	Negative	Conviction
4.	Manik Mukherjee v.State of Bihar (04.04.2000 – PATNAHC) MANU/BH/0184/2000	302 IPC	Positive	Conviction
5.	State of Punjab v. Naib Din (2001) 8 SCC 578	9 of the opium Act, 1878	Positive	Conviction
6.	Jaipal v. State of Haryana (2003) 1 SCC 169	302 IPC	Positive	Acquittal
7.	State of Maharashtra v.Manoharsingh (11.08.2003 – BO MHC) MANU/MH/0902/2003	302/201 IPC	Negative	Conviction
8.	Dharampal and Ors. v. State of Delhi (24.09.2004 – DELHC) MANU/DE/0812/2004	304 IPC	Positive	Conviction
9.	State of H.P. v. Jaswant Kumar (2004) 13 SCC 516	Rule 2(c) Section 17 to 22 of the NDPS Act	Positive	Conviction
10.	State rep. by DSP v. Subramaniam (15.12.2005 – MADHC) MANU/TN/2600/2005	302 IPC	Negative	Conviction

11.	Kuppusamy v. Inspector of Police (18.09.2006 – MADHC) MANU/TN/9752/2006	302 IPC	Positive	Conviction
12.	State of Karnataka by the Police Inspector v. R. Raju (15.09.2006 – KARHC) MANU/KA/8395/2006	341 IPC	Negative	Conviction
13.	Appasaheb And Another v. State of Maharashtra (2007) 9 SCC 721	304 B /34 IPC	Positive	Acquittal
14.	Budhwaria Bai v. State of M.P. (Now C.G.) (16.04.2007 –CGHC) MANU/CG/0252/2007	302 IPC	Positive	Conviction
15.	Smt. Ranju Devi v. The State of Bihar (08.11.2007 – PATNAHC) MANU/BH/0388/2007	302/328 IPC	Positive	Acquittal
16.	Vithal v. State of Maharashtra (2007) 15 SCC 699	498A/302/201 IPC	Negative	Conviction
17.	Hardip Singh v. State of Punjab (2008) 8 SCC 557	18 of the NDPS Act, 1985	Positive	Conviction
18.	Balbir Kaur v. State of Punjab (2009) 15 SCC 795	15 of the NDPS Act, 1985	Positive	Conviction
19.	Mohammed Shaikh v. State of Gujrat and Anr. (04.02.2009 – GUJHC) MANU/GJ/0527/2009	498 A/306 IPC	Negative	Conviction
20.	Smt. Karpai v. State (Delhi Admn) (03.07.2009 – DELHC) MANU/DE/0872/2009	302/307 IPC	Positive	Acquittal
21.	State of Karnataka by Zhalaki Police v. Kabir Imamsab and Ors. (22.04.2009 – KARHC) MANU/KA/1114/2009	498A/302/201 IPC	Negative	Conviction
22.	State of Rajasthan v. Bhiya Ram (2009) 14 SCC 390	8 section 18 of NDPS Act	Positive	Conviction
23.	Anita v. State of Haryana (22.03.2010 – PHHC) MANU/PH/0118/2010	302/328 IPC	Positive	Conviction
24.	Babu v State of Kerala (2010) 9 SCC 189	302 IPC	Positive	Acquittal
25.	Ganesh v. The State of Maharashtra (09.03.2010 – BOMHC) MANU/MH/0274/2010	304 B/498 A IPC	Negative	Conviction
26.	Nanhar & Others Vs State Of Haryana (2010) 11 SCC 423	302 IPC	Positive	Acquittal
27.	Vikram Singh & Others v. State of Punjab (2010) 3 SCC 56	302, 364-A, 120B and 201IPC	Positive	Conviction
28.	Anil Kumar Gupta v. State of Uttar Pradesh (2011) 11 SCC 24	304 B/498 A IPC	Positive	Acquittal
29.	Chadran & Others v State of Kerala (2011) 5 SCC 161	120B/302/307/326 /328/201IPC	Positive	Conviction
30.	Surjit Singh v. State of Punjab (02.06.2011 – PHHC) MANU/PH/1917/2011	302 IPC	Positive	Conviction
31.	Jeyaraj v. State (15.02.2012 –MADHC) MANU/TN/0695/2012	302 IPC	Positive	Conviction
32.	Sahabuddin And Another v. State of Assam (2012) 13 SCC 213	302 IPC	report not produced	Conviction
33.	Shanmughan v State of Kerala (2012) 2 SCC 788	302 IPC	Positive	Conviction
34.	Kulwant Singh v. State of Punjab (2013) 4 SCC 177	304 B/498 A IPC	Positive	Conviction
35.	Saraswati Barman v. State of Assam (30.01.2013 – GUHC) MANU/GH/0015/2013	302 IPC	Positive	Acquittal
36.	Pawan Singh v. State and Ors. (04.02.2015 – DELHC) MANU/DE/0302/2015	302 IPC	Negative	Conviction

**Conflict of Interest:** None.

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