



Purpose, method, drugs used and health risks of the Narco test

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Abstract

Even in print and electronic media, the murder of a girl in Mehroli, Delhi that took place in May 2022 is being covered as leading news. These days, everyone seems to be talking about the incident. Now that the accused person is in police custody, the judge has granted authorization for the police to conduct a Narco test on him in order to uncover the truth and gather evidence. There are now three contemporary methods for discovering the truth. These include the polygraph test, brain mapping and Narco test. The first two don't need any kind of medication, but the third one does, and they have to inject it into the suspect's body. In the Narco test, psychoactive medications such sodium pentothal, scopolamine, and sodium amyntal are injected into the subject in order to cause them to experience hypnosis or become sleepy. Under these circumstances, it is highly assumed that the subject will only speak the truth and nothing else throughout the interrogation. Because of this, the test is also referred to as the truth serum test. Although this test is highly helpful in questioning to solve criminal cases, we cannot ignore the bad consequences of the drugs employed and the negative features of the test on both physical and mental health. The court acknowledged that it was illegal and a violation of the right to privacy. In this article, we discuss the necessity of conducting a Narcoanalysis test, as well as its requirements, the procedure to follow in order to carry it out, the potentially harmful effects of the drugs that are used, as well as the potentially harmful effects of the test itself on one's health and some popular Indian criminal cases that are related to Narco testing.

Keywords: Narco test; Narcoanalysis test; Truth serum; Thiopental Sodium; Pentothal; Indian Narco test cases

1. Introduction

A man named Aaftab Poonawalla, who is 28 years old and is accused of killing his live-in partner Shraddha Walkar, who was 27 years old, in May of 2022, has been granted permission by a court in Saket, which is located in New Delhi, to undergo a Narco test. Poonawalla, who is suspected of chopping up Walkar's body into multiple parts and dumping them over the course of several weeks in a forested region in South Delhi, will be required to take a drug test as part of the investigation that is being conducted by the police into this case [1].

In order to obtain information from the suspect, investigators have employed a number of different methods. Interrogation of the suspect is an essential part of the process during the course of a criminal inquiry. Lie detectors, also known as polygraph tests, Narcoanalysis tests and brain mapping are three prominent methods for eliciting admissions from suspects that can be used as evidence [2].

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2. Lie detector test / Polygraph test

The premise upon which a polygraph is constructed is that a liar's physiological responses will differ from those of a truthful individual. The suspect's vital signs (blood pressure, pulse rate, respiration rate, change in sweat gland activity, blood flow, etc.) are monitored when questions are asked during a polygraph examination. No drugs are injected into the body. Each answer is given a numerical value that can be used to determine if the respondent is speaking the truth, is lying or is unsure.

3. Brain Mapping

It is a set of neuroscience techniques predicated on the mapping of biological quantities or properties onto spatial representations of the human or non human brain resulting in maps. The brain is in a continuous state of producing electrical impulses in the brain tissue. Many conditions can alter the normal flow of these impulses. Conditions such as obsessive compulsive disorder, attention-deficit/hyperactivity disorder, depression, anxiety and others have distinctive signatures noted in recorded brainwaves [3].

4. Narco test / Narco analysis test

The term "Narcoanalysis" is a combination of two terms: "Narco" and "analysis." Together, these phrases mean "psychological evaluation" and refer to the practice of administering drugs under medical supervision in order to induce a state that is more or less similar to sleep. An individual who is suspected of having a disease or condition is subjected to a biological test, during which they are put under a state of sleepy hypnotism. During this time, the individual's subconscious is awakened, and the test is designed to extract evidence from the subject's unconscious mind [4].

This test includes injecting a drug into the body of the individual, such as sodium pentothal, scopolamine, or sodium amytal, which causes them to go through several phases of anaesthesia. While a person is under the influence of hypnosis, they become less guarded and are more likely to share things that they would normally keep private when they are in their conscious condition. It is possible to display all of the subject's imaginations, personal wishes, intuition, beliefs, conflicts, misinterpretations and drives. If the subject is given the improper dose, it could put them into a coma or even be fatal. Because the drug depresses the central nervous system, lowers blood pressure, and slows the heart rate, the individual is put into a hypnotic trance without any inhibitions, which allows the bio-molecules to have an influence on the individual's bio-activity [2].

5. But why are these kinds of testing necessary?

The use of these tests in investigations has increased recently. They are sometimes viewed as a "softer alternative" to torture or the "third degree" for getting the truth out of suspects. However, neither approach has been empirically demonstrated to have a 100% success rate nor it is still debatable in the medical community. The National Human Rights Commission's guidelines for administering a polygraph test on an accused must be strictly followed and the subject's agreement must be documented in front of a judicial magistrate. The findings of these examinations are not taken into consideration as "confessions." On the other hand, any information or material that is subsequently uncovered with the assistance of such a willingly taken test may be presented in court as evidence [1].

6. Drugs used for Narco test

Drugs (such as sodium pentothal, scopolamine or sodium amytal) are administered intravenously to induce varying degrees of sleepiness in the subject being evaluated. A person's inhibitions are lowered during hypnosis, making it more probable that they will speak things they would never say when they are fully awake. Investigators utilize this test when other pieces of evidence don't paint a clear picture of the case [5].

6.1.1. Sodium Pentothal / Thiopental Sodium

Sodium pentothal, a substance that takes the accused to a hypnotic or drowsy condition where their imagination is neutralized, is injected into their bodies as part of a Narcoanalysis test. The accused is believed to be incapable of lying during this hypnotic condition and is supposed to reveal only accurate information. A fast-acting, short-acting anaesthetic called sodium pentothal or sodium thiopental is used in higher doses to sedate patients during surgery. It is a member of the barbiturate family of medicines, which have depressive effects on the central nervous system. The medicine is frequently referred to as a "truth serum" since it is thought to make the individual less determined to lie [1].

Thiopental Sodium for Injection, USP is indicated as the sole anesthetic agent for brief (15 minutes) procedures, for induction of anesthesia prior to administration of other anesthetic agents, to provide hypnosis during balanced anesthesia with other agents for analgesia or muscle relaxation, for the control of convulsive states during or following inhalation anaesthesia, local anaesthesia or other causes, in neurosurgical patients with increased intracranial pressure and for Narcoanalysis and Narcosynthesis in psychiatric disorders.

Common side effects of Thiopental Sodium: Coughing, sneezing, hiccups, slowed breathing, slow heart rate, cardiac arrhythmias, prolonged sleepiness and recovery and shivering [6].

6.1.2. Scopolamine

Scopolamine is used to prevent nausea and vomiting caused by motion sickness or medications used during surgery. Scopolamine is in a class of medications called antimuscarinics. It works by blocking the effects of a certain natural substance (acetylcholine) on the central nervous system.

Common side effects of Scopolamine: Disorientation, dry mouth, drowsiness, dilated pupils, dizziness, sweating, sore throat, rash, redness, eye pain, redness, discomfort, blurred vision, seeing halos or colored images, agitation, seeing things or hearing voices that do not exist (hallucinating), confusion, believing things that are not true, not trusting others or feeling that others want to hurt, difficulty speaking, seizure, painful or difficulty urinating, stomach pain, nausea and vomiting [7].

6.1.3. Amobarbital sodium

Amobarbital sodium or Amytal Sodium is a sedative used for short-term treatment of insomnia. This drug is used as sedative, hypnotic for the short-term treatment of insomnia and preanaesthetic.

Common side effects of Amytal Sodium include sleepiness, confusion, nervousness, insomnia, dizziness, nausea, vomiting, constipation, headache, fever, agitation, nightmares, anxiety, sleep apnea, low blood pressure, fainting, injection site reactions, muscle spasm, loss of coordination, hallucinations, abnormal thinking, slow breathing, slow heart rate, hypersensitivity reactions (skin swelling, peeling or rash) and liver damage [8].

7. Truth Drug or Truth Serum

The primary three tests that have recently been established for the purpose of removing acknowledgments are the scientific tools of interrogation, more specifically the Narco study and the examinations using the Truth Serum. In addition to this, these psychoanalytical examinations are utilized to gain an understanding of the performance of the suspect and to validate the conclusions of the examining officer.

The "Narcoanalysis test," also known as the "Truth Serum Test," is the name of this procedure that involves the use of drugs for the purpose of determining whether or not something is being inspected. It provides resources for psycho evaluation that make use of medications in order to stimulate a condition that is comparable to sleep. In addition to its other names, the Narcoanalysis test is also known as the "truth serum test."

7.1. Members of the team conducting Narco test

- A psychiatrist
- An anaesthesiologist as the primary physician
- A forensic psychologist
- A team of nurses
- A videographer
- An interpreter

7.2. Narcotics testing is performed in India at the

- Forensic Science Lab, Bangalore, Karnataka
- Forensic Science Lab, Gandhi Nagar, Gujarat

8. Steps involved in the Narco Test

- Drugs are injected into the individual until they appear relaxed and instead of good conduct, drugs are given intravenously to induce hypnosis. As soon as the individual's speech begins to slur, the interview begins.
- The anaesthetist induces Narco and maintains a pre-Narcotic state throughout the interview.
- The interview is facilitated by a forensic psychologist and the individual is given the opportunity to sleep off and wake up on his or her own time.
- After he comes to, the anaesthesiologist does a check up on him and then gives him permission to drink coffee or tea.
- The entire Narco interview has been written down, in addition to being audio and video captured.
- Memory is tested after the test in the post-test interview.
- An individual has the right to know what was said during an interview in which they participated [4].

8.1. How to do a Narcoanalysis test

The anesthesiologist at Forensic Science Laboratories uses a solution of 3 grams of sodium pentothal in 300 milliliters of distilled water, which is injected intravenously along with 3 milliliters of dextrose over the course of 3 hours to conduct the Narco analysis. The examination is an intrusion on the body of the subject, which puts it gradually into a hypnotic state.

During the procedure, the Electrocardiogram (ECG) and blood pressure are kept an eye on at all times. The things that were found while the person was in a hypnotic trance were put on video and audio cassettes. During drum interrogation, the questions are carefully thought out and asked over and over again to make sure there are no misunderstandings. Then, the experts write up reports that could be used as proof. In the Narco Analysis Test, the person goes into a "twilight" state, which is halfway between being awake and being asleep. He will find it hard to lie in this situation, so his answers will be based on what he already knows. Before the test, the court's permission and the subject's written consent are needed. An Anesthesiologist, a psychiatrist, a clinical/forensic psychologist, an audio-videographer, and nursing staff help with the Narco analysis test. The forensic psychologist will write a report about the new information that will include an audio-video Compact Disc. If needed, the person is given a polygraph test and a brain mapping test to get a better idea of how serious the information is [2].

8.2. Negative Aspects of the Narcoanalysis Test

The investigators, the vast majority of whom do not come from a medical background are not aware of the horrible repercussions of hazards and dangers that are associated with the administration of derivatives of barbiturates, which may at times prove lethal to the life of a suspect.

- Damage to brain cells
- Permanent damage to memory
- Permanent state of misperception
- Irreversible unconsciousness or death
- Permanent loss of all body action
- Respiratory paralysis

These are some of the most prominent dangers in the context of medical reasons [4].

8.3. Restrictions in conducting Narco test

According to the rules, the subject must also consent for a Narco test to be conducted. No one may be subjected to a polygraph test, Narcoanalysis, or brain map without that person's consent. The highest court ruled that such tests violate peoples' rights to privacy and are therefore unlawful.

8.4. Some criminal investigations that have sought to use these testing [3, 4]

- As part of the investigation into the alleged gang rape and murder of a 19-year-old Dalit lady by four males of the Thakur caste in Hathras, the UP government requested to perform polygraph and Narco tests in October 2020. The relatives of the victim declined.

- In August 2019, the Central bureau of investigation (CBI) requested that a former employee of the Punjab National Bank who was being held in connection with the suspected Rs 7,000 crore fraud involving the missing jewellers Mehul Choksi and Nirav Modi undergo polygraph and Narcoanalysis tests. Gokulnath Shetty, the manager, turned down permission.
- In Uttar Pradesh in July 2019, the truck driver and his assistant were to undergo these tests after their vehicle collided with the van carrying the Unnao rape victim.
- In May 2017, Indrani Mukerjee offered to take the lie detector test. She is on trial for allegedly killing her daughter Sheena Bora in 2012. The CBI declined, claiming that they already had enough evidence to convict her.
- Polygraph tests were administered to Dr. Rajesh Talwar and Dr. Nupur Talwar, who were charged with murdering their daughter Aarushi and assisting Hemraj in Noida in 2008.
- The Ajmal Kasab terrorist case from the 26/11/2008 Mumbai terror assault.
- The 2007 Nithari homicide case.
- The 2003 Abdul Karim Telgi phoney stamp paper fraud.
- The 2002 Gujarat riots case.

9. Conclusion

Even in healthy people, the administration of a psychotropic substance during a Narco test might pose substantial risks to their mental health. The Supreme Court has ruled that this practice is unlawful and a breach of personal privacy. Due to the lack of scientific certainty surrounding Narco test findings, they cannot be used as confession/statement in court. After the subject matter statement, only the location and materials seized are admissible in court utilizing the Narco test. Considering the risks and side effects of the substances used in Narco tests, it is imperative that they be abolished and that research be conducted to find a suitable replacement.

Compliance with ethical standards

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The authors declare that there is no conflict of interest.

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