

Content available at: <https://www.ipinnovative.com/open-access-journals>IP International Journal of Forensic Medicine and
Toxicological SciencesJournal homepage: <http://www.ijfmts.com/>

Case Report

A tattoo mystery

Rinkal Chaudhary¹, Vinod Dhingra^{2*}

¹GD Goenka University, Gurugram, Haryana, India

²Police Training School, Gwalior, Madhya Pradesh, India



ARTICLE INFO

Article history:

Received 29-08-2024

Accepted 14-09-2024

Available online 28-09-2024

Keywords:

O'Reilly's

Biometric

Narcotic drugs

ABSTRACT

The identity of the person is crucial in any crime scene examination. Identification of the deceased is one of the main goals in forensic medicine. It is imperative to confirm the identity of the deceased person before conducting the autopsy. Finding a deceased person's identification becomes difficult if there are no hints or reference materials that may be compared. Some conventional techniques are available to establish the identity of the person in those cases where reference samples are not available. A case from Gwalior, M.P. was examined where an unidentified dead body of a male was found near Gwalior fort. The conventional technique was used in this case for the identification of the deceased hand and the identity was established.

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](#), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Introduction

The difficulty of identifying deceased people whose identities are unknown has been eased by the variety of identification techniques now in practice. Numerous techniques, including visual identification using photos and videos, exterior characteristic analysis, internal characteristic study during an autopsy. Another method like superimposition technique and DNA fingerprinting technique can be employed to identify an unknown deceased.¹

The identification of a living person relies solely on recognized fingerprints, birthmarks, or other personal impressions such as distinctive gestures, motions, or features of their hair, eyes, teeth, and voice.² Post-mortem identification in the traditional sense relies on evidence such as fingerprints, dental records, or skeletal findings. However, the identification of deaths caused by fires, explosions, airplane crashes, and other traumatic events, as well as aged remains, is a challenging task through

traditional methods.³ The conventional technique for the identification of any individual which was used earlier for taken considerations some points those extents to across the civilizations and the cultures is the practice of tattooing. It involves inserting ink into the skin to create permanent designs or markings.⁴ Throughout history, traditional tattooing techniques have played a vital role in cultural and artistic expression, enduring across generations and persisting in specific regions today. This article explores role of tattoo in identification of unknown. Despite evolving over time, from ancient customs to modern approaches, tattoos continue to hold cultural value as a means of personal expression, identity, and commemoration.^{5,6} Over time, tattoos have carried diverse cultural significances and functions, serving as means of identification, spiritual safeguarding, ceremonial practices, and representations of aesthetics, resilience, and inclusion. Within numerous indigenous communities, tattoos were regarded as channels of spiritual articulation, often infused with profound symbolic significance.⁷

The dissemination and transformation of tattooing techniques occurred worldwide through trade, exploration,

* Corresponding author.

E-mail address: vbhingraso@hotmail.com (V. Dhingra).

and cultural interchange.⁸ The art of tattooing spread worldwide through trade, exploration, and cultural interchange, with various societies in Asia, Europe, and the Americas embracing and modifying the practice.

The resurgence of tattooing emerged in the late 19th and early 20th centuries with Samuel O'Reilly's invention of the electric tattoo machine in 1891. Presently, tattoos are widely embraced as vehicles for self-expression and artistic expression, employing advanced techniques and a diverse array of colors and styles, spanning from traditional to contemporary forms.⁹ In modern times, tattooing has evolved into a prevalent cultural trend, attracting individuals from diverse backgrounds who seek tattoos for purposes ranging from personal expression to commemoration and aesthetic enhancement.¹⁰ The history of tattoos exemplifies humanity's enduring quest for self-expression, identity, and a link to both past traditions and contemporary culture.

1.1. Techniques to reveal the identity of an unknown deceased/person

1. Fingerprints: This is one of the oldest and most reliable methods. Each person has unique ridge patterns on their fingertips that can be compared against a database of known prints.
2. DNA Analysis: DNA profiling compares genetic material obtained from a biological sample (such as blood, saliva, or hair) to identify individuals. It's highly accurate and commonly used in criminal investigations and paternity testing.
3. Dental Records: Dental records, including X-rays and dental charts, can be compared to post-mortem dental records to identify human remains.
4. Facial Recognition: Facial recognition software analyzes facial features from images or video footage to match against known images in databases. While advancing, it's not always 100% accurate and relies on good image quality.
5. Identification Cards: Official identification cards, such as driver's licenses, passports, and national identification cards, are issued by governments and contain personal information and a photograph to verify identity.
6. Handwriting Analysis: Handwriting analysis involves comparing characteristics of a person's handwriting, such as letter formation and spacing, to known samples to establish identity.
7. Biometric Identification: This includes various methods such as iris recognition, palm prints, voice recognition, and gait analysis. These biometric traits are unique to individuals and can be used for identification purposes.
8. Ear Biometrics: The shape and features of the ear are unique to individuals and can be used for identification purposes through specialized biometric systems.

9. Tattoo Recognition: Tattoos can be used as identifying marks, especially if they are distinctive or contain personal information.

10. Scars and Birthmarks: Unique scars, birthmarks, or other physical features can be used for identification if they are documented and recognizable.

These techniques are often used in combination to establish a more robust identification process, especially in forensic investigations for the identification of an unknown deceased.

The basic aim of medico legal autopsy is to establish the identity and cause of death. This is extremely important and has legal values in unnatural deaths. The corpse becomes unidentifiable due to many reasons including intentional mutilation. The mutilation may be possible because of decomposition, changes, or the incidences which occurred at the time of death such as: fire, air crash, natural calamities (earthquakes), building collapse, railway accidents or manmade incidences like bomb blasts or mass ring etc. The intentional mutilation of a dead body by the criminals in order to hide the crime is not uncommon. The task becomes more difficult when bodies are totally skeletonized.

However, scientific and meticulous medico legal examination with scientific correlation helps to arrive at definite conclusion about establishing identity and cause of death. This in turn will assist the investigating agencies in bringing justice to the departed and closure to the families of the deceased. In our scientific study, a total of 51 such cases were studied in which establishing identity and cause of death was a challengeable task. However, thorough forensic examination helped to establish identity in most of cases along with the cause of death the basic aim of medico legal autopsy is to establish the identity and cause of death. This is extremely important and has legal values in unnatural deaths. The corpse becomes unidentifiable due to many reasons including intentional mutilation. The mutilation may be possible because of decomposition, changes, or the incidences which occurred at the time of death such as: fire, air crash, natural calamities (earthquakes), building collapse, railway accidents or manmade incidences like bomb blasts or mass ring etc. The intentional mutilation of a dead body by the criminals in order to hide the crime is not uncommon. The task becomes more difficult when bodies are totally skeletonized.

However, scientific and meticulous medico legal examination with scientific correlation helps to arrive at definite conclusion about establishing identity and cause of death. This in turn will assist the investigating agencies in bringing justice to the departed and closure to the families of the deceased. In our scientific study, a total of 51 such cases were studied in which establishing identity and cause of death was a challengeable task. However, thorough forensic examination helped to establish identity in most of cases along with the cause of death the basic aim of

medico legal autopsy is to establish the identity and cause of death. This is extremely important and has legal values in unnatural deaths. The corpse becomes unidentifiable due to many reasons including intentional mutilation.

The mutilation may be possible because of decomposition, changes, or the incidences which occurred at the time of death such as: re, air crash, natural calamities (earthquakes), building collapse, railway accidents or manmade incidences like bomb blasts or mass ring etc. The intentional mutilation of a dead body by the criminals in order to hide the crime is not uncommon. The task becomes more difficult when bodies are totally skeletonized.

However, scientific and meticulous medico legal examination with scientific correlation helps to arrive at definite conclusion about establishing identity and cause of death. This in turn will assist the investigating agencies in bringing justice to the departed and closure to the families of the deceased. In our scientific study, a total of 51 such cases were studied in which establishing identity and cause of death was a challengeable task. However, thorough forensic examination helped to establish identity in most of cases along with the cause of death.

2. Case History

An unidentified dead body was found near a fort situated in Gwalior (Figure 1). The fort was right at the foot of a high-altitude hill like structure and people commonly refer to that location as a suicide point.

On early investigation, it seemed that the body was eaten by animals and clothes suggested that the deceased was a male. Skull and mandible were found near the dead body (Figure 2). There were animal bite marks all over the body (Figure 3). A tattoo was present on the hand of the deceased (Figure 4). The police officers were investigating the particular cases but to establish the identity of deceased is important before solving the case.



Figure 2: Skull



Figure 3: Close-up photograph



Figure 1: Dead body

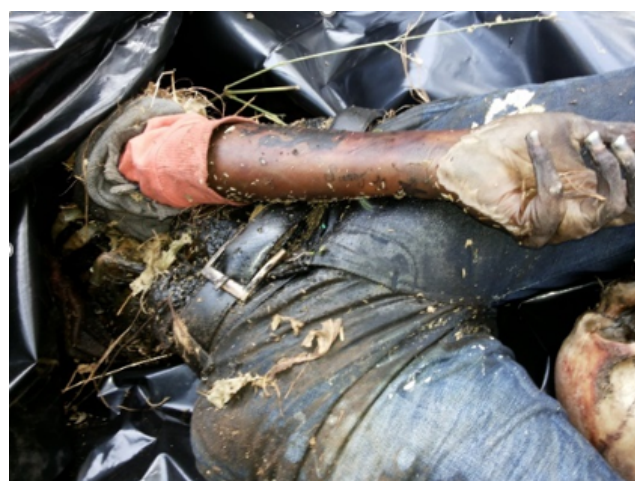


Figure 4: Tattoo photograph



Figure 5: Close-up photograph of skull



Figure 6: Close-up photograph

Through the clothes it was seemed that the person was male but when the hands of the deceased were closely examined (Figure 4), it showed that the tattoo was a name written as “Suraj” and there were marks on the hands which indicated that the deceased was a drug addict possibly a smack user (Figure 6).

Assuming the idea of getting self-name tattooed which was a common thing in old days, an article was published in newspaper with same details. Deceased was identified by the family next day itself. They confirmed that his name was Suraj and he was working as a labor at building construction site usually consume narcotic drugs.

3. Discussion

Tattoos are valuable for identifying deceased individuals due to their unique designs, symbols, or text. They are particularly useful when traditional identification methods, like fingerprints or dental records, are unavailable or compromised. Distinctive or rare tattoo patterns, such as unique designs or specific symbols, can be crucial in linking

a tattoo to a particular person for confirming identity when there is uncertainty about a person’s identity. Forensic teams can compare images of tattoos with existing records or photos of known individuals to verify the identity of deceased or unknown persons. Tattoos may be considering as an informative tool in forensic science for identifying and linking individuals, though they come with their own set of challenges. Their uniqueness and permanence make them a significant piece of evidence in many forensic investigations. In the mentioned case, the deceased was identified with the help of tattoo marking due to having special peculiarity and was finally recognize by the parents of the deceased. So, tattoo markings can provide informative leads in criminal investigations. For instance, if a person with a specific tattoo is reported missing, the tattoo can be a crucial piece of evidence in tracing their whereabouts or confirming their identity if they are found.

4. Conclusion

In summary, Tattoos can play a significant role in forensic science, particularly in the identification of individuals. Tattoos possess a rich cultural heritage that spans numerous societies and civilizations. From ancient traditional methods to modern techniques, tattoos have adapted over time while retaining their cultural importance as vehicles for personal expression, identity, and remembrance.

Though once viewed with stigma and linked to notions of criminality or defiance, tattoos have gained widespread acceptance in contemporary society as a legitimate art form and mode of self-expression. As tattoos continue to surge in popularity, it’s crucial to acknowledge and honor their cultural significance, appreciating the diverse meanings and symbolism they carry for individuals and various cultures. In this case, the unidentified dead body was also identified through the tattoo mark which was present on the hand of deceased and the mystery of case was resolved on the basis of tattoo.

5. Source of Funding

None.

6. Conflict of Interest


None.


References

1. Üzün I, Daregenli Ö, Sirin G, Müslümanoğlu Ö. Identification procedures as a part of death investigation in Turkey. *Am J Forensic Med Pathol.* 2012;33(1):1–3.
2. Modi RB. A textbook of medical jurisprudence and toxicology. 24th ed. and others, editor. Elsevier; 2013.
3. Cavard S, Alvarez JC, Mazancourt D, Tilotta P, Brousseau F, Grandmaison PL, et al. Forensic and police identification of “X” bodies. A 6-years French experience. *Forensic Sci Int.* 2011;204(1-3):139–82.

4. Waghmare PB, Chikhalkar BG, Nanandkar SD. Establishing identity and cause of death in mutilated and un identifiable corpses: a challenging task for medico legal expert. *J Forensic Biomed.* 2015;6(1):1–6.
5. Ghosh P. A Cultural Heritage. Antrocom. *Online J Anthropol.* 2020;16(1):295–304.
6. Baruah S. Tattoos: A tribal heritage. Times of India; 2011. Available from: <https://timesofindia.indiatimes.com/life-style/fashion/buzz/tattoos-a-tribal-heritage/articleshow/6040717.cms>.
7. Krutak L. The cultural heritage of tattooing: a brief history. *Tattooed Skin Health.* 2015;48:1–5.
8. Martin CW. Tattoos as narratives: Skin and self. . *Public J Sem.* 2013;4:2–46.
9. Morgner C. Trust and society: suggestions for further development of Niklas Luhmann’s theory of trust. . *Canadian Rev Sociol/Revue canadienne de sociologie.* 2018;55:232–56.
10. Demello M. Bodies of inscription: A cultural history of the modern tattoo community. and others, editor. Duke University Press; 2000. p. 256.

Author biography

Rinkal Chaudhary, Assistant Professor  <https://orcid.org/0000-0001-7322-4337>

Vinod Dhingra, Senior Scientific Officer  <https://orcid.org/0000-0003-1033-4592>

Cite this article: Chaudhary R, Dhingra V. A tattoo mystery. *IP Int J Forensic Med Toxicol Sci* 2024;9(3):112-116.