

## Original Research Paper

# A Role of Digital Imaging in Identification of Unidentified Bodies

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### Abstract

Unidentified and unclaimed bodies for medico-legal autopsy has shown increased trend. Relatives of unidentified bodies suffer a lot of psychological trauma and also suffer in settling insurance, inheritance and pension claims. When an unidentified body has injuries on face, then photograph of such deceased is not accepted by print or electronic media for publication as such photograph may cause distress to the viewers.

This study was conducted on three cases of unidentified and unclaimed bodies brought for medico-legal autopsy with facial injuries making their photographs unfit for publication in print or electronic media. Photograph of the deceased face was taken; image was transferred to a computer and by using Adobe Photoshop software CS2 and the injuries present on face were removed. The result showed that in all the three cases we could establish the identity by digital imaging. Relatives of the deceased could identify their missing relative by photograph shown to them after removal of injuries. Later on police confirmed the identification by using other methods of establishing identity. This method can be an aid in identification of unidentified bodies presented with facial injuries.

**Key Words:** Digital Imaging; Identification; Missing Persons; Unclaimed Bodies; Unidentified Bodies

### Introduction:

The number of unidentified dead bodies recovered in India and inquest conducted has increased from 33,656 in 2003 to 37,282 in 2007. [1] The number of missing persons in country is also increasing and it is felt by the high court judges that since the number is increasing and the present mechanism is not able to trace the missing persons, a new mechanism is necessary to be set up. [2] Around 15 per cent of 38,670 people who went missing from Delhi in the past three years are yet to be traced. Police has been instructed to register FIRs in case of a missing person reports lodged in the past three years. [3]

### Law in Relation to Unclaimed Bodies:

- **Presumption of Death:**

The question of presumption of death may arise at the time of inheritance of property.

It also arises in obtaining insurance money or for pension claim when a person is alleged to have been dead and body is not found. Under section 107 of the Evidence Act of India, a person is presumed to be alive, if there is nothing to suggest the probability of death within 30 years. But if proof is produced that the same person has not been heard of for seven years by those friends and relatives who would naturally have heard from him had he been alive, death is presumed (S108 I.E.A.). [4]

- **Disposal of Unclaimed Bodies:**

The Human Organs Transplantation Act (THOA) provides for the regulation of removal, storage and transplantation of human organs for therapeutic purposes. Sec.5 defines an 'unclaimed body' as one in a hospital or prison and "not claimed by any of the near relatives of the deceased person within 48 hours from time of death of the concerned person. [5]

The Punjab police rule [6] states that if a body is unidentified, the officer making the investigation shall record a careful description of it, giving all marks, peculiarities, deformities, other distinctive features and shall take the finger impressions. In addition to taking all other reasonable steps to secure identification he shall, if possible, have it photographed. In cases where such action appears desirable, a description should be published in the criminal intelligence Gazette. Unidentified body should

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be handed over to any charitable society which is willing to accept them, and if no such society comes forward, they should then be buried or burnt. In Delhi, the police sends telegram message called 'Hue and cry notice' to various police head quarters of the country.

The 'Hue and cry notice' contained brief description of the identification features of the deceased. The body is preserved in the mortuary for 72 hours from the time telegram message is sent. If there is no one to claim the body after 72 hours the police is legally authorized to dispose off the body. But if the police think that the body maybe identified by the relatives, it should be preserved for longer time till relatives comes and claims the body. [7]

#### • **Unidentified Bodies Preventing Conviction:**

It is essential for a dead body to be thoroughly identified and the proof of corpus delicti to be established before a sentence is passed in murder trials, as unclaimed, decomposed bodies or portions of a dead body or even bones are sometimes brought to support false charges. However, there have been cases where the death sentence was passed even when the body was not identified, if the facts of the cases were proved beyond any reasonable doubt. [8]

#### **Agony of Missing Person's (Deceased) Family:**

If a person is missing and untraced, the entire family members suffer psychological trauma and lives in dilemma whether the person is still alive or not. If a missing person dies and his identity remains undisclosed, the family members of that missing person can't perform the rituals which are normally done in event of death of a family member.

In issues related to the insurance/ inheritance/ pension claim, the nominee/ concerned person has to legally prove that the missing person has died, but as they don't have any clue about the whereabouts of that missing person, such issues remain unsolved unless they provide sufficient evidence so that court presume that the person has died.

#### **The present Law Enforcement Scenario:**

Generally a 'missing person' entry is made in General Station Diary (GD) and no FIR is registered, except in certain states where a 'Zero FIR' is registered. In a zero FIR, no crime number is assigned because a missing person complaint is not prima facie considered crime. The follow up for the zero FIR and the GD entry is same.

The Station House Officer (SHO) forwards information to the superintendent of police or to the deputy commissioner of police who in turn forwards it to the office of the chief of police. At the field, local police officials publicize the particulars of the missing persons in the media by circulating the available identification details and photographs.

The message that reaches the police headquarters in the state is normally lodged with the Missing Persons Bureau (MPB), which often is a wing of the CID of the state police. They, in turn, forward the message to the missing persons wing of the National Crime Record Bureau (NCRB) at New Delhi. NCRB, at best, forwards this message to the chief of police in other states. The police stations generally do not give any feedback to the NCR when the missing person is rescued or returned and, therefore, the NCRB is unaware both of traced persons and those who remained untraced.

The NCRB, under the TALASH information system, maintains a national level database of unidentified persons and unidentified dead bodies. In the NCRB, inputs to the TALASH system are received through wireless messages fax, magnetic media, periodical statements and e-mails from state/ UT police and central police organizations (CPOs). The NCRB database is regularly updated and monthly reports are generated. NCRB is also in the process of procuring a 'facial recognition system' based on biometrics, which incorporates the body measurements of the person concerned. The 'facial search' will be integrated with the 'attribute search' of TALASH. [9]

#### **Materials and Methods:**

This study was conducted on three cases of unidentified and unclaimed bodies brought for medico-legal autopsy. In all the three cases facial injuries were present making their photographs unfit for publication in print or electronic media for identification purpose. Photograph of the deceased face was taken with a digital camera of 4.2 mega pixel.

The image was transferred to a computer and by using Adobe Photoshop software CS2, the injuries present on face were removed with the help of dodge, burn, sponge, blurs, sharpens, clone stamp and smudge tools. While using various tools of Adobe Photoshop care was taken so that the basic anatomical features of face (size, shape, eyebrows, mouth ear etc.) facial symmetry and anthropometric measurement are not disturbed or to the minimum. The purpose of removing the injuries from face was to convert the photograph of the

deceased to make it more presentable for print and electronic media.

#### Case one:

An unidentified and unclaimed body of 33 year old male was brought for medico-legal autopsy. On face blood stains were present at few places with left black eye. Internal findings of cranio-cerebral injuries were present. Facial injuries were removed by using various tools of adobe Photoshop software. (Fig. 1 & 2)

#### Case Two:

An unidentified and unclaimed, decapitated body of 29 year old male was brought for medico-legal autopsy. Several images of the deceased face were taken after placing the head in anatomical position with the remaining part of the body and the most appropriate image was selected for editing by using various tools of adobe Photoshop software. (Fig. 3, 4 & 5)

#### Case Three:

An unidentified and unclaimed body of 2 year old male was brought for medico-legal autopsy. Forehead was showing skull fracture with brain tissue visible at the site of fracture. The image was edited by using appropriate tools of adobe Photoshop software to remove the head injury from the image. (Fig. 6 & 7)

**Fig.1: Left black eye and few blood stains on face**



**Fig. 2: After Removing Facial Injuries**



**Fig. 3: Decapitated Body**



**Fig. 4: Head in Anatomical Position with the Remaining Part of the Body**



**Fig. 5: After Removing Facial Injuries**



**Fig. 6: Head Injury**



**Fig. 7: After Removing Facial Injuries****Result:**

Photograph of the deceased, after removing the facial injuries, were shown to the deceased relatives who came for identification of their missing relative. In all the three case relatives identified the deceased from the photograph shown to them with no facial injuries. Care was taken that prior to showing these photographs no personal belongings or photograph with injuries were shown to the relatives by the police.

In our study we found that relatives of the deceased could identify their missing relative with the help of photograph shown to them after removal of injuries and in all three cases later on police confirmed the identification by using other methods of establishing identity like personal belongings, fingerprint matching etc.

**Discussion:**

In our study of three cases we were able to establish identity in all the three cases. We found that if such an attempt is made in unidentified bodies to convert the photograph of the deceased to make it more presentable for print and electronic media by removing injuries on the face by digital imaging it can help in establishing the identity of such unidentified bodies. This can, to some extent, lessen the agony of the deceased relative by performing the rituals and settling the insurance, pension, and inheritance claims.

It can add in identification of those unidentified bodies where due to early postmortem changes or injuries on face, the photograph could not be used for publication in the newspaper or for electronic media.

This technique have few limitations as bodies in which face is distorted due to putrefaction or due to extensive injuries of skull cannot be edited by preserving the person's facial characteristics.

Further study on large sample is required and then such photographs can be used by law enforcing agencies for print and electronic media as a tool to establish identity of unidentified bodies. In a country like India where number of unidentified bodies found every year is quiet high and a large number of migratory population is residing in metro cities, such an attempt can help to some percentage of relatives of unidentified bodies.

**Conclusion:**

In our study we found that use of digital imaging in establishing identification of unidentified bodies is highly significant, therefore such digitally edited photographs can be used by the police for print and electronic media in order to establish identity of unidentified bodies presenting with facial injuries.

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