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## Death Scene Investigation in Cases of Suicidal Hanging

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#### **Abstract**

In most of the Suicidal Hanging involving young and Adult individual Speculations surrounding the Incident is not unusual. There are instances wherein an Individual is Killed by Strangulation and than Suspended. Hence, It is always important to Study the Death Scene besides the Crime Scene apart from the Postmortem Examination so as to understand the Suicidal Hanging. In this Study a total of 634 cases of Suicidal Death Scene Analysis was performed. The Most Preferred Point of Suspension was Roof Beam/Bar/Hook in 51% of cases [n-323] and Ceiling Fan, as point of Suspension in 44% [n-279] cases of Suspension. In 61% of cases, Suicide preferred Their Place of Residence as most preferable and the least preferred were places like Garden, School/College and Vehicle, each contributed to only 1% of Cases.

In 92% [n-356] of cases wherein the Death had taken place in their Residence the Doors were Locked from inside. Similarly in all Cases of Hanging inside Bath room/Toilet [6%] and Hotels/Lodge [12%] the Door was locked from inside. Only on 36% [n-228] of cases, The Suicide used Aids to gain access to the Point of Suspension. Suicide notes was present in only 28% [n-178] of cases. In 46% [n-292] of cases the body was brought down from the Point of Suspension before the arrival of the Police or Doctor.

Keywords: Death Scene Examination; Suicidal Hanging; Asphyxia; Point of Suspension; Place of Suspension; Hanging

### Introduction

In all Death Investigation the Expertise of Forensic Medicine Expert/Pathologist is essential Medical expertise is always necessary in death investigations. It begins with body examination and evidence collection at the scene and than proceeds through history, External and Internal examination, laboratory tests, and Final Conclusion - in short, the broad ingredients of a Examination by Forensic Doctor is essential to understand the Cause of Death, Manner of Death, Time Since Death and Evidence Collection in Criminal Justice System. Death investigation has been performed for centuries in all societies, although not always by medical professionals [1]. The English coroner system was mentioned in documentations around the 12th century B.C [2]. The primary goal of a death investigation is to establish the cause and manner of Death. In homicide, suspected homicide, Suspected Suicide and other suspicious or obscure cases, the forensic medicine expert should visit the scene of the death before the body is removed. Local practice varies but any doctor claiming to be a forensic medicine expert should always make himself available to accompany the police to the locus of the death. A thorough and complete investigation commonly leads to the proper diagnosis of the cause and manner of death prior to an autopsy [3]. This duty is often formalized and made part of a contract of service for those forensic medicine experts who are either full-time or substantially involved in assisting the police, in England and Wales, the 'Home Office Pathologists' are permanently on call for such visits and in many other jurisdictions, such as the medical examiner systems in the USA, and the European State and University Institutes of Forensic Medicine, there is usually a prearranged duty roster for attendance at scenes of death [4]. In many cases, the Death scene investigation is more important than the autopsy. The Primary Crime Scene is an area, place, or thing where the incident occurred or where the majority or a high concentration of physical evidence will be found, for example, where there has been a sudden suspicious death. Secondary Crime Scene are areas, places, or things where physical evidence relating to the incident may be found. The potential physical evidence will usually be transported away from the primary crime scene. Some examples include: The deceased, the get-away vehicle in crimes of armed robbery, the suspect, the suspect's environment, the suspect's vehicle, the weapon used in the crime [5]. If a deceased person is at the scene we call it the Death Scene. One of the initial and primary tasks is to determine whether a crime has been committed at the death scene. Every death scene is a potential crime scene. It is important to carefully examine the scene for evidence or unusual circumstances that may indicate the death of the person is other than by natural causes [6]. The Forensic Medicine expert Visiting the Death Scene help to understand the Body in the context of its surroundings, the forensic medicine expert is better able to interpret certain findings at the autopsy such as a patterned imprint across the neck from collapsing onto an open vegetable drawer in a refrigerator. The forensic medicine expert is also able to advise the investigative agency about the nature of the death, whether to confirm a homicide by a specific means, evaluate the circumstances to be consistent with an apparent natural death, or interpret the blood loss from a deceased person as being more likely due to natural disease than to injury, Time Since Death. This preliminary information helps the investigative agency to define its perimeter, structure its approach, organize its manpower, secure potentially important evidence, and streamline its efforts. Nonattendance at death scenes has been regarded as one of the classical mistakes in forensic pathology.

The cause and manner of death are provided by the scene [7]. The examination of a death scene and subsequent collection of potential evidential material requires special skill, knowledge, aptitude, and attitude. The manner in which a death scene investigation is conducted may be a critical factor in determining the success of an investigation. The thorough examination of a death scene requires a disciplined and systematic approach to recording the various observations made and collection of potential evidential material. This must be combined with the analysis of various observations and the interrelationship of potential evidentiary material [8]. Hence, Information from the Death scene in regard to its surroundings, Aids used to gain access to the Point of suspension, Suicide Notes recovery, Point of Suspension, Place of Suspension are always important to understand the Suicidal Hanging and at the same time rule out other causes of death and end speculations surrounding the Death. In short comings or inadequacies in this will lead to Death becoming mysterious.

Death Scene Investigation is important to understand Suicidal Hangings, without which Conclusion on the Suicidal Nature of Suspension will always remain Incomplete. The Crime Scene Officers duty is different from that of the Death Scene Investigation, this is essential to corroborate the Autopsy findings and arrive at the Final conclusion on the Suicidal Nature of Hanging. Hence, this Study highlights the importance of Death Scene Investigation in understanding Completely Suicidal Hanging.

#### Materials and Methods

The present Retrospective Study was carried during the period 2009 to 2020. A total of 634 cases were Studied during this period. Majority of the Data was collected from the Police/Magistrates Report and from Crime scene Vedios & Photographs, very Few cases The Author had visited the Death Scene, when the request from the Authorities or Family Members were made and in those cases where there was serious discrepancies with the Police Statement and Postmortem Findings. Postmortem findings was corroborated with the Death scene findings. The Data Obtained were entered in a Standard Format recorded in a Designated Register. The results were than Analysed.

In the Present Cases only Suicidal Hangings were Examined, the same was confirmed after meticulous evaluation of the Psychological Autopsy findings, Circumstances, Crime Scene findings, Autopsy Findings, Toxicological findings and Investigative findings.

All cases with adequate details described above only were included in the present study, any other cases with absence Death scene Photographs, those admitted to hospitals and those rescued from the Point of Suspension and Suspected Homicidal, Homicidal and Accidental Hangings, Hence the Hospital Records were not examined. The Psychological Autopsy, Circumstances, Autopsy Findings, Toxicological findings with Investigative findings were consdired to conclude it as Suicidal Hangings. Crime Scene Findgins, were excluded in the present study. Since the Examination was done on those bodies referred by the Police or the Authorities, Ethics committee approval was unwarranted, however, all the referred Cases were declared Forensic Cases and the same were examined only under the Authorization from the Concerned Investigating Agencies.

#### Results

A Total of 634 cases were studied and analysed during the period 2009 to 2020.

Table 1 indicates the Point of Suspension, The Roof Beam/Bar or Hook formed the Preferred Choice for Suspension Contributing to 51% [n-323] of the Suspension, followed closely by The Choice of Ceiling Fan in 44% [n-279] of suspensions. The Window Beam was the Least preferred point of Suspension and was reported in 1% of cases. The other Point of Suspension reported was Tree Branch in 4% [n-25] of the Cases.

Sl No	Point of Suspension	Number of Cases		
01	Ceiling Fan	44% [n-279]		
02	Roof Beam/Bar/Hook	51% [n-323]		
03	Window Beam	1% [n-6]		
04	Tree /Tree Branch	04% [n-25]		

Table 1: Point of Suspension

Table 2 Describes the Place of Suspension. The Most Preferred place for Suicide was place of Residence in 61% [n-387] of Hangings. The Other Preferred Place was Hotel/Lodge in 12% of cases. Bathroom /Toilet was another place noted in 06% of Cases. The least preferred places of Suicidal Hanging were School/College and Vehicle. Few cases 02% [n-13], were reported from Prison.

Sl no	Place of Suspension	Number of Cases	
01	Residence	61% [n-387]	
02	BathRoom/Toilet	06% [n-38]	
03	Garden	1% [n-6]	
04	Hotel/Lodge	12% [n-76]	
05	Hostel	07% [n-44]	
06	School/College	01% [n-6]	
07	Vehicle	01% [n-6]	
08	Place of Work/Occupation	09% [n-70]	
09	Prison	02% [n-13]	

Table 2: Place of Suspension

Table 3 describes the Detailed Death Scene Findings in cases of Suicidal Hangings. Only in 38% of cases Aids in the form of Stools, Tables, Chairs, Cot were used to gain access to the Point of suspension. In majority of Suicidal Hanging, 82% [n-519] Doors were Locked from Inside. Suicide Notes were present only in 28% of cases. The Surroundings in the Death Scene were disturbed in only 06% of cases. In 46% of cases the Body was brought down from Suspension before the Arrival of the Police. In 04% of cases Consumption of Controlled Substance was detected at the scene and the same was confirmed in Toxicological analysis. In 02% [n-13] cases Secondary Injuries like Incised Wounds and Superficial Stabs on the accessible area of the body were present.

Sl no	Death Scene Findings	Percentage of cases	Total Cases
01	Aids Used to Reach Suspension Point	36%	228
02	Doors Locked from Inside	82%	519
03	Suicide Notes	28%	178
04	Secondary Injuries	02%	13
05	Disturbance of Surroundings at Death Scene	06%	38
06	Consumption of Drugs/Controlled Substance	4%	25
07	Body Brought Down from the Point of Suspension by the Time of arrival of First Responders.	46%	292

Table 3: Death Scene Examination Findings

All the cases studied were brought dead cases to the Morgue, by the Investigating Agencies and many were examined at the Death Scene, none were treated in the Hospital. Hence the Hospital Records were not examined. The Psychological Autopsy, Circumstances Psychological aspects, Financial crisis, relationship crisis, Disease Factors, Crime scene findings, Autopsy Findings, Toxicological findings with Investigative findings were considered to conclude it as Suicidal Hangings.

#### Discussion

This Retrospective study was conducted between 2009 and 2020. A total of 9684 cases were autopsied during this period, of which deaths due to hanging comprised 6.5% (n -634) of Autopsies. I all cases of Death Investigation it is important for the Forensic Medicine Expert/Pathologist to Visit the Death Scene and Gather All Evidence and information he could Contribute to the process of Death and Manner of Death. Sometime the Information is provided by the Police in the form of Inquest and Photographs of the Crime Scene. Hence analysis of the Death Scene is always important [9,10] and failure to do so may jeopardize the entire understanding of the cause and manner of Death and at the same time mislead the Prosecution. The major Limitations of this study are those cases wherein the Death scene was disturbed, Body was shifted or rescued from suspension, and non-availability of Crime scene photographs.

Majority of Suicidal Hanging involving young adult individuals are always looked under suspicion about the Cause and Manner of Death. Hence Examination and Analysis of the Death Scene is Important before the Dissection of the Body. At Times Psychological Autopsy, interviewing Friends and Family Members should also be considered for better understanding the Circumstances in Suicidal Hanging. Similar were the Views of Bastia & Kar.N [11].

In cases of Hanging, It is always important to rule out Accidental and Homicidal Hanging and Strangulation, Hence the Death Scene Examination and Analysis is Vital to understand The reach of the Victim to the alleged Point of Suspension, is it Reachable or not?, If not What Aids Used to Gain access to the Point of Suspension? [12-15].

Other Comments Dilemma is at times Ligature mark of Suspension resemble those of Strangulation leading to more speculation, hence understanding and analyzing the Crime scene is Vital to corroborate the Findings [16]. In Suicidal hanging the Other Important part of Death Scene Examination is Type of Death Scene, Victims Residence, School/College, Prison, Hotel/Lodge. In the Present Study 61% of the Victims Committed the act at their Place of Residence, this is possibly due to Ownership, Isolation and accessibility, hence Places other than the Ownership and Accessibility by the Victim should always be look under suspicion. Similarly, Suicidal Hanging in Hotels/Lodges were second commonest places preferred by the Suicide in the present study confirming the Temporary Ownership and Accessibility for Isolation to facilitate the Act of Suicide. In Majority of this cases [98%, n-540] the Door was Locked from Inside, this information has defined the Character of a Suicide, that they always lock the door form inside before committing the Act. In 36% [n-228] cases the Suicide used Aids like Chairs, Stool, Benches and even Cot to gain Access to the Point of Suspension. The Less number using the Aids to gain access indicates the possibility that Some of the Points were reachable or they may have flung the Ligature to gain access to the Point of suspension or they may have jumped to reach the Point. However, any absence of Aids used to gain access to the Point of Suspension in circumstances beyond the reach of the Suicide should always looked under suspicion. The present study also highlighted the fact that Suicide Notes is not a prerequisite for all Cases of Suicidal Act because in only 28% [n-178] of the Victims the Suicide notes were reported. Hence the Presence of Suicide notes only adds to the Corroboration but rules out the Importance to Characterize Suicidal Act. The present study also confirmed that Majority of Suicidal hanging [94%,n-596] The Surroundings were undisturbed at the Death Scene, only 6% of the Cases the Surroundings were Disturbed. Hence, Disturbance of Surroundings at the Death Scene should draw the Attention of the investigators not the Undisturbed Surroundings at the Death Scene. The other serious observations made in the present study is, in high number of Cases 46% [n-292], the Body was brought down form the Alleged point of Suspension before the Arrival of the Police or the Expert, this may lead to further speculations and add suspicion on the individuals who were responsible for the same. However, honest attempt to rescue the Victim from the noose and Resuscitation attempts should be rule out before drawing conclusions. In the present study 2% of the victims showed Non Fatal injuries in the form of Superficial stabs, Hesitation cuts, before Attempting the Fatal Suspension, hence the Death scene Examination is Vital to understand better the Associated injuries [17] like amount of Blood, Blood Trail, Weapon availability at the Scene, so as to corroborate with the Fatal Act of Suspension. in this cases Psychological Autopsy also makes circumstances more relevant [11]. Hence the Present Study has added more light on the Importance of Death Scene Examination and Analysis in cases of Suicidal hanging before the Autopsy, After the Autopsy or through Photographs and Videos of the Death Scene.

#### Conflict of interest

The present study has no financial or personal relationship with any person or organization.

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