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## Analysis of Hanging Deaths in Hyderabad

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### ABSTRACT

Asphyxial deaths are one of the most common autopsy cases. Hanging is the most common method of asphyxial death. Hanging cases can involve both suicides and homicides and therefore are of paramount Medico legal Importance. The objective of this study was to analyze the patient demographics in hanging cases encountered in the geographical area of Hyderabad city. This was a prospective observational study conducted at Osmania General Hospital. After obtaining consent a demographic history was obtained from the relatives and analyzed. Data was collected in MS Excel and presented as numbers and percentages in the form of tables and graphs. Male cases accounted for 71% of the total cases whereas the female cases accounted for 29% of the total cases. Male predominance was noticed in the study. Most prone age group was 21-30 years followed by age groups 31-40 years and 10-20 years. The demographic profile obtained will be helpful for healthcare professionals, governmental agencies and NGO's in devising and implementing suicide prevention strategies.

## INTRODUCTION

According to the World Health Organization, nearly a million people die from suicide every year throughout the world<sup>[1]</sup>. That is a huge number by any means. It is estimated that around 170,000 people die by committing suicide every year in India. The percentage of people committing suicide by hanging in India is rising every year. Hanging although more commonly suicidal, can also be homicidal and is a subject of huge Medico Legal concern.

Asphyxial death is a death occurring due to lack of oxygen. Different types of asphyxia death include hanging, smothering, choking, strangulation, drowning, wedging and traumatic asphyxia. Hanging is one of the most common types of asphyxia in adults. It is the most painless form of suicide and has been practiced since ancient times. Hanging is a form of asphyxiation which occurs when the body is suspended by means of a ligature around the neck, with one's own weight acting as the force of constriction. Hanging can be typical or atypical depending on the position of the ligature. Post mortem findings in cases of hanging include petechial hemorrhages, cyanosis of lips, finger nails and toes, dribbling of saliva, ligature mark, fracture of hyoid bone and others.

We aim to conduct this research anticipating that the results obtained will be helpful for healthcare professionals, governmental agencies and NGO's in devising and implementing suicide prevention strategies.

## MATERIALS AND METHODS

**Study design:** This was Prospective Observational Study.

**Study setting:** The present study was conducted at the Mortuary, Osmania General Hospital and the Department of Forensic Medicine, Osmania Medical College, Hyderabad.

**Sample size:** About 727 cases of hanging cases examined at the mortuary of Osmania General Hospital were studied and analyzed during this study.

This was a prospective observational study conducted at Osmania General Hospital. After obtaining consent a demographic history was obtained from the relatives and analyzed.

**Statistical analysis:** The data was collected in MS Excel and represented as numbers and percentages in the form of tables and figures.

**Ethical clearance:** Ethical clearance was obtained from the Institutional Ethical Committee.

## RESULTS

Male cases accounted for 71% of the total cases whereas the female cases accounted for 29% of the total cases. Male predominance was noticed in the study (Table 1).

As depicted in Table 2, most prone age group was 21-30 years followed by age groups 31-40 years and 10-20 years.

As depicted in Table 3 age group 21-30 years had the most number of male and female cases of hanging.

## DISCUSSIONS

This part of the study deals with the discussion of the overall study related to Asphyxial deaths which is one of the most common autopsy cases being present. The study helps to gain the causes of the most common autopsy deaths and the involvement of other fatalities related to this. As per the view of Sharma *et al.*<sup>[2]</sup>, it is found that most of the deaths in this asphyxial death are due to the hanging style of the body. In some cases, the hanging cases also include homicides of individuals and also suicides that are occurring in this phase. According to Khan *et al.*<sup>[3]</sup>, these findings lead to the way of analyzing all the patients of demographic regions who are encountered in the hanging cases. These are near the areas of the city of Hyderabad which is also a geographical area. This occurs due to the less amount of oxygen and wedging of the body and is called traumatic asphyxia. The data is collected from different observational studies that are conducted and are based on different demographic histories. As per the view of Liju<sup>[4]</sup>, hanging is the very form of asphyxiation that happens when a body is being kept suspended. Suspended in the form of a ligature and is present around the neck. This becomes very typical and the body shows some actions like hardening of saliva, rupture of nails and fracture in the hyoid bones of the body. As mentioned by Shields and Hunsaker<sup>[5]</sup>, it can be seen that the cases including males are around 71% and were accountable for most of the occurring cases over females. The cases accounted for by females are nearly 29% of all the

Table 1: Gender distribution

Gender	No. of patients	Out of 727 (%)
Male	519	71
Female	208	29
Total	727	100

Table 2: Gender distribution

Age	No. of patients	Out of 727 (%)
10-20	125	17.19
21-30	279	38.37
31-40	174	23.94
41-50	83	11.41
51-60	44	6.06
61-70	11	1.51
71-80	9	1.24
81-90	2	0.28
Total	727	100.00

Table 3: Age vs gender correlation

Age	No. of male patients	No. of female patients	Total	Out of 396 (%)
10-20	69	56	124	17.19
20-30	187	92	279	38.37
30-40	143	31	174	23.94
40-50	71	12	83	11.41
50-60	33	11	44	6.06
60-70	7	4	11	1.51
70-80	8	1	9	1.24
80-90	1	1	2	0.28
Total	519	208	727	100.00

accounted cases for. At last, the study showed that the deaths occurring was between the age group of 21-30 years. So, a vast knowledge can be gained from the overall study.

### CONCLUSION

The demographic profile obtained will be helpful for healthcare professionals, governmental agencies and NGO's in devising and implementing suicide prevention strategies

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