

Study of sex and various age groups in cases of death due to compression to neck

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Abstract

Deaths due to compression to neck are one of the most frequently encountered cases in forensic practice. Various factors play role in death due to compression to the neck. Of such factor is sex and age of the deceased. A detailed study of the sex and age of the victim is necessary to find the vulnerable sex and age group in such cases. The current study is done to highlight the various aspects of sex and age in cases of death due to compression of neck.

Keywords: compression to neck.

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OBSERVATION AND RESULTS

The present study was conducted in the Department of Forensic Medicine and Toxicology, of Government Medical College, Nagpur. The cases included in the study were the asphyxial death cases, in which the postmortem examination was conducted in this Department from January 2012 to December 2013. During the specified period as above total 100 cases of compression to neck were examined. The cases were studied with respect to the different age groups. The criteria applied for selecting the case was that the asphyxia should have occurred by compression of neck. Sex of the deceased was noted. The age of the deceased as provided in police papers were noted. Cases with no history of compression to neck and decomposed body were excluded from the study.

OBSERVATION

Out of total 100 cases, 05 cases were of homicide and 95 cases were of suicide. Of the 05 cases of homicide, 03 cases were of ligature strangulation and 02 cases were of manual strangulation (throttling). Out of total 95 cases of suicide, all the cases were of hanging. Out of total 05 cases of homicidal compression to neck 02 cases were females and 03 cases were males. Out of total 95 cases of suicidal compression to neck 32 cases were females and 63 cases were males. Of total 100 cases of compression to neck, 34 were females and remaining 66 were males. Of total 95 suicides, 63 were males and 32 were females with male: female ratio 1: 0.51.

INTRODUCTION

Deaths due to compression to neck are one of the most frequently encountered cases in forensic practice. Various factors play role in death due to compression to the neck. Of such factor is sex and age of the deceased. A detailed study of the sex and age of the victim is necessary to find the vulnerable sex and age group in such cases.

MATERIAL AND METHODS

The present study was done from January 2012 to December 2013 at the Department of Forensic Medicine and Toxicology, of Government Medical College, Nagpur. A total 95 cases of hanging were studied with respect to the ligature material used. The cases included in the study were the cases of death due to hanging, in which the postmortem examination was conducted in this Department. The meticulous examination of ligature material, was carried out in this study.

Table 1: Age and sex wise distribution of cases of compression to neck

Age in years	Male cases		Female cases		Total cases	
	No	%	No	%	No	%
0 to 10 yrs	00	00	00	00	00	00
11 to 20 yrs	09	09	11	11	20	20
21 to 30 yrs	20	20	12	12	32	32
31 to 40 yrs	17	17	07	07	24	24
41 to 50 yrs	13	13	02	02	15	15
51 to 60 yrs	03	03	02	02	05	05
61 to 70 yrs	02	02	00	00	02	02
71 to 80 yrs	00	00	00	00	00	00
> 81 yrs	02	02	00	00	02	02
Total	66	66	34	34	100	

In the present study, no case was reported, between 0 to 10 years of age, where death was caused by a compression around neck. In this study, 20 cases (20 %) were observed in age group of 11 to 20 years. 32 cases (32 %) were observed in age group 21 to 30 years of which 20 victims were male and 12 victims were females. 24 cases (24 %) were observed in age group 31 to 40 years of which 17 victims were male and 07 victims were females. 15 cases (15 %) were observed in 41 to 50 years age group of which 13 victims were male and 02 victims were females. 5 cases (5 %) were in 51 to 60 years age group, of which 03 victims were male and 02 victims were females. 2 cases (2 %) were observed in 61 to 70 years age group of which all were male and 2 cases (2 %) were observed in >81 years age group of which all were male. Thus, maximum cases (32 cases) were observed in 21 to 30 years age group. Common age group in both sexes, i.e. male and females was 21-30 years. Male preponderance was observed in all age groups except 11-20 years age group; where male to female ratio was 1: 1.22 Vs. 1 : 0.51 for total study ratio including all age groups.

Table 2: Age and sex wise distribution of deaths in cases of hanging, ligature strangulation and manual strangulation (throttling)

Age in years	Male cases			Female cases			Total cases		
	Hg	LS	MS	Hg	LS	MS	Hg	LS	MS
0 to 10 yrs	0	0	0	0	0	0	0	0	0
11 to 20 yrs	09	0	0	11	0	0	20	0	0
21 to 30 yrs	18	01	01	11	01	0	29	02	01
31 to 40 yrs	16	0	01	06	01	0	22	01	01
41 to 50 yrs	13	0	0	02	0	0	15	0	0
51 to 60 yrs	03	0	0	02	0	0	05	0	0
61 to 70 yrs	02	0	0	0	0	0	02	0	0
71 to 80 yrs	0	0	0	0	0	0	0	0	0
> 81 yrs	02	0	0	0	0	0	02	0	0
Total	63	01	02	32	02	0	95	03	02

Hg:- Hanging, LS:- Ligature strangulation, MS:- Manual Strangulation.

DISCUSSION

In the present study out of total 95 cases of hanging, no case was reported, between 0 to 10 years of age, where death was caused by a compression around neck. 20 cases (21.05 %) were observed in age group of 11 to 20 years. 29 cases (30.53 %) were observed in age group 21 to 30 years of which 18 victims were male and 11 victims were females. 22 cases (23.16 %) were observed in age group 31 to 40 years of which 16 victims were male and 06 victims were females. 15 cases (15.79 %) were observed in 41 to 50 years age group of which 13 victims were male and 02 victims were females. 5 cases (5.26 %) were in 51 to 60 years age group, of which 03 victims were male and 02 victims were females. 2 cases (2.10 %) were observed in 61 to 70 years age group of which all were male and 2 cases (2.10 %) were observed in >81 years age group of which all were male. Thus, maximum cases i.e. 29 cases were observed in 21 to 30 years age group. Common age group in both sexes, i.e. male and females was 21-30 years. Out of total 03 cases of ligature strangulation, 02 cases were in the age group 21 to 30 years, of which 01 victim was male and the other victim was female. 01 case was observed in the age group 31 to 40 years and the victim was a female. Out of total 02 cases of manual strangulation, 01 case was in the age group 21 to 30 years and the victim was male. The other case was observed in the age group 31 to 40 years and the victim was a male in this case also. In the present study no case was reported, between 0 to 10 years of age, where death was caused by a compression around neck. In this study, 20 cases (20 %) were observed in age group of 11 to 20 years. 32 cases (32 %) were observed in age group 21 to 30 years of which 20 victims were male and 12 victims were females. 24 cases (24 %) were observed in age group 31 to 40 years of which 17 victims were male and 07 victims were females. 15 cases (15 %) were observed in 41 to 50 years age group of which 13 victims were male and 02 victims were females. 5 cases (5 %) were in 51 to 60 years age group, of which 03 victims were male and 02 victims were females. 2 cases (2 %) were observed in 61 to 70 years age group of which all were male and 2 cases (2 %) were observed in >81 years age group of which all were male. Out of 100 cases of death due to compression to neck maximum 32 cases were observed in the age group 21 to 30 years, followed by 24 cases in the age group 31 to 40 years. Thus ages between 20 to 40 years formed more than half of the study subjects. Similarly Maximum cases observed in the age group 21 to 30 years were also found in studies by Bhattacharjee et al (1996)¹, Sheikh and Agarwal (2001)², Dixit et al (2001)³, Sunil Kumar et al (2002)⁴, Batra and Dongre (2003)⁵, Sharma et al (2004)⁶ 47% cases, Sharma et al (2005)⁷ 27%cases, Ambade et al (2007)⁸, Sharma et

al (2008)⁹ 57% cases, Prajapati et al (2011)¹⁰, Patel et al (2012)¹¹ 40 %cases and Jayaprakash and Sreekumari (2012)¹² 22.2% respectively. However this do not match with Bowen (1982)¹², who found high incidence of hanging over age of 50 in males while in women 40 to 49 years age group. The authors suggested that the increased incidence in men above age of 50 years was probably related to a trend with concurrent fall in suicides by carbon mono-oxide poisoning and by barbiturate drugs due to more circumspect prescribing of the drugs. The authors also suggested that the increased incidence in women of 40-49 years age group was possibly related to menopausal illness or mental disturbances occurring at that time, while Azmak (2006)¹³ reported maximum cases (20.8%) in the age group 30 to 39 years without going into further details regarding the causes for the same. Ages between 20 to 40 years formed more than half of the study subjects. can be explained by the fact that the age group of 21 – 30 years is the active phase of life where a person is transformed to a more responsible person and hence there is more exposure to anxiety, stress, strain and various adverse circumstances, the person is more vulnerable as there is no previous exposure to such stressful situation. The particular age is subjected to exposure to hard realities of the life and ever increasing competitions in almost all fields of life starting from education upto employment and resulting exposure to anxiety, stress, strain and various adverse circumstances like financial problems, family disputes, business failures etc probably making more vulnerable to commit suicide by hanging.

CONCLUSION

Out of 100 cases of death due to compression to neck maximum 32 cases were observed in the age group 21 to 30 years, followed by 24 cases in the age group 31 to 40 years. Thus ages between 20 to 40 years formed more than half of the study subjects. Susceptible individuals in this age groups should be carefully looked for to avoid them taking such steps to end their life.

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