



THE STUDY OF CHANGING TRENDS OF FIREARM INJURIES

Dr Pankaj Kumar

Associate professor FMT Dept. Patna medical college Patna

Dr Radha Raman Singh*

Associate prof. FMT Dept. NMCH, Patna *Corresponding Author

Dr Arvind Kumar Singh

Associate prof. FMT Dept. NMCH, Patna

ABSTRACT

This study "changing trends of fatal fire-arm injuries brought for autopsy in PMCH Patna after a gap of about 30 years" is the study of fatal fire arm injuries (f.f.arm) & its various aspects in autopsies carried out in Patna Medical College Hospital, Patna between February 1987 to August 1988 and between March 2016 to September 2017. After an interval of a long period (about 30 years) some aspects of firearm injuries are seen to change remarkably i.e. like change in age pattern, shifting of rural pattern into urban pattern, sight of injury and the changing pattern of the distance of firing.

KEYWORDS : Firearm, mortuary, bullet, autopsy.**INTRODUCTION**

Study of different aspects of fire-arm injuries done on cases brought in PMCH Patna mortuary by the author no. II over a period extending from February 1987 to August 1988 (Period I) and the other study done by author no. I over a period extending from March 2016 to September 2017 (Period II). Observations of these two periods were compared. Findings of these two periods are eye openings.

MATERIAL AND METHODS

Findings of each case were collected exclusively from the post-mortem examination reports of the autopsies carried out during the two periods and the opinions given by the investigating officers in the concerned inquest reports. After study of each report a comparison of findings was done.

In period I, total no. of cases of fatal fire arm injuries brought in P.M.C.H mortuary was 135 out of a total no. of 2022 autopsies. This number was 49 in period II out of a total no. of 3840 autopsies. Percentage of cases of fatal fire-arm injuries got reduced to 1.3% from 6.7%. Following findings of each autopsy of both periods (I and II) i.e. – age and sex of the deceased, whether the case was brought directly from the place of occurrence or from hospital, whether the deceased was from rural or urban background, known or unknown, types of firearm used, whether the case was suicidal, homicidal or accidental, parts of the body involved and distance of firing. A percentage of more than '10' of these findings were considered as a change and these are labelled as "considerable changes". Only the considerable changes have been focused in this study.

Table I- Shows considerable changes in fatal firearm injuries between period I and II.

Traits		Period-I		Period-II	
		No. of cases	Percent age	No. of cases	Percent age
Habitation	Rural	75	61.9	16	32.7
	Urban	46	38.1	33	67.3
Age	20-40yrs	93	69	21	42.9
	40-60yrs	18	13.3	21	42.9
Range of firing	< 90 cm	66	48.7	39	79.6
	>90 cm	54	39.8	10	20.4
Body parts involved	Head & neck	26	19.2	20	40.8
	Thorax	31	22.7	05	10.2
Total no. of fatal of fire-arm injuries		135 (out of total no. of 2022 cases)	6.7	49 (out of total no. of 3840 cases)	1.3

DISCUSSION

There was a very big decrease in the total number of cases of fire arm injuries in period II in comparison to period I, which was 6.7% of the total autopsies 30 years back but has now dropped to only 1.3%. This indicates administrative, social, educational and healthcare improvement in Bihar. It is necessary to point out that during period I, Masaurhi and Dhanarua police-stations were under the jurisdiction of PMCH, Patna and were badly affected with 'Naxal' activities and most of the cases of fatal fire arm injuries were brought from these two police-stations. Many people belonging to upper caste and big land holders were under threat due to class conflicts and as precautionary measure they shifted to urban areas. Disputes and quarrels of rural areas shifted towards urban areas and so the deaths in rural areas were reduced by 32.7% in rural areas from 61.9% and in urban areas it increased to 67.3% from 38.1%.

This type of social change was also visible in this study. The incidence of death was maximum due to fire arm injury in period I, as youths of age group 20-40 years i.e. 69%. This may have resulted due to the fact that youths of this age group were under pressure of struggle with naxal problems. After an interval of 30 years the incidence was reduced to 42.9% from 69%.

In age group 40-60 years, the condition is reversed. In this age group, the incidence of fatal fire arm injury to 13.3% in period I which has increased to 42.9%.

The injury to the head and neck by fire arms, the victims were attacked with bullet on head and neck was 19.2% in period I but after a gap of a period of 30 years this has increased to 40.8%.

The incidence of firing within 90cm (3 feet) from targeted victims were increased to 79.6% in period II in respect of period I which was 48.7%. On the other side, incidence of firing on target beyond the distance of 3 feet (90cm) was reduced to 20.4% in period II in respect of 39.8% in period I. This shows that assailants have become more confident and bold.

CONCLUSION

This study indicates that in after a long period of 30 years, administrative performances, health facilities, social reforms and educational status of Bihar state is improving year by year.

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