

## **FATAL HOMICIDAL FIREARM INJURIES ON THE HEAD**

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## **INTRODUCTION**

The head is a common target for homicidal attacks. This has been well proved by the use of protective helmets by warriors through ages. Though in the past, homicidal injuries in the head were mostly by blunt or sharp weapons the situation has changed very much these days where firearms are used commonly. A number of factors make the head the target of choice in homicidal firearm attacks. With the use of fatal weapons like firearms death is almost certain. It also causes very early death i.e. time interval between injury and death is very less and in rare cases where the victims survive they are unable to give any statement due to loss of consciousness.

## **MATERIAL AND METHODS**

The present study comprised of 41 cases of fatal homicidal firearm injuries to the head that were brought to the mortuary of the Department of Forensic Medicine, Institute of Medical Sciences, B.H.U., Varanasi for medicolegal postmortem examination. The cases came from Varanasi, Chandouli, and adjoining districts of Eastern U.P. and Western Bihar. Information relevant to the cases were collected from the inquest report, by interviewing the police personal accompanying the victim as well as from the family members and relatives. The obtained data have been presented in the form of various tables.

## **OBSERVATIONS AND RESULTS**

In nearly three fourth of the cases rifled firearms were used whereas in only 21.95% cases smooth bore guns were used. In 4.88% cases the type of firearm could not be ascertained as both wads and bullets were recovered from the wounds. (Table-1).

In maximum (39.03%) cases there were single shot while in 19.57% cases there were two shots. (Table-2).

In half (50%) of the cases no bullets were recovered while a single bullet was recovered in 21.87% and two bullets in 15.63% cases. Thus most of the fires were either through and through or there was blast effect. (Table-3).

Among the smooth bore gun cases in one third (33.33%) pellets with wad disc were recovered and in another 33.33% along with pellets and wad disc, wad air cushion were also recovered. Only pellets were recovered in 22.23% cases. (Table-4).

Distant range fire was the commonest at 46.35% closely followed by close range (41.46%). Contact (7.32%) and near range (4.87%) fires were much lower in comparison. (Table-5).

In 46.35% cases no specific effect was seen around the site of entrance wound whereas in 21.95% along with tattooing there was burning, singeing and blackening. Blast effect on the head was found in 17.08% cases. (Table-6).

In nearly three fourth (73.18%) cases the entrance wound was only on the head while in 14.63% cases it was through the face and neck. In 12.19% cases the entrance wound was located on the head, face as well as on other body parts. (Table-7).

In over majority (58.55%) of the cases the exit wound was found on the head. Out of these in 41.47% the exit wound was distinguish able while in 17.08% there was blast effect on the head and the exact location of the exit wound could not be ascertained. (Table-8).

The most common direction of fire was from front to back (23.16%) followed by right to left (21.46%) and above downwards (17.52%). (Table-9).

## **DISCUSSION**

The preference of rifled firearms over smooth bore guns for homicide is due to their effectivity i.e. surety of death. It also confirms their firm intention to kill their victims. In some cases it has been observed that in smooth bore gun cartridge instead of pellets, bullets are being used as a result of which bullets along with wads are recovered from the same wound. This creates a doubt during autopsy examination regarding the type of firearm used. Moreover it is even more difficult to prove such cases beyond doubt and to convince the legal people during trial in the court of law.

Our study also showed that in over majority (58.60%) of the cases either a single or two fires were made and in these cases the target site on the body was the head whereas when more than two fires were made other body parts were also involved along with the head. As the target was the head, hence a single or two fires were sufficient to kill the victims. Among the rifled firearm cases (32) in half (50%) no bullets were recovered from the body which shows that most of the fires were either through and through or there was blast effect. On the other hand among the smooth bore gun cases in 77.77% wad discs or wad air cushions were recovered which proves that in smooth bore gun cases the fires were usually made from close range.

Our study revealed that in nearly half (48.78%) of the cases the fires were either contact or from close range while distant range fire was also quite common (46.35%). The contact or close range fires were made to increase effectivity and be sure that the victim was killed. These fires were mostly from smooth bore guns. On the other hand if we compare this range of fire with the missiles recovered from rifled firearms we find that inspite of the fact that in 46.35% cases the fires were made from distant range yet in half (50%) of the rifled firearm cases no bullets were recovered from the body. This shows the high power of the rifled firearms where even in distant range fire the bullets pass through and through. This effectiveness has increased the use of such rifled firearms these days. The distant range fires were favourable for the assailants not only to hide as well as to escape after the crime but at the same time to fulfill their intention of killing their victims.

The present study also showed that in nearly three fourth (73.18%) of the cases the entrance wound was only on the head while in 14.63% was on the face and neck. It is quite an alarming finding because it seems that the assailants are specifically targeting the head and as it has already been observed that in majority of the cases (58.60%) only a single or two shots were fired, hence they are quite sure of being successful in their intention to kill victims. Further, it was observed that the most common direction of fire was from front to back (23.16%) followed by right to left (21.46%). Maximum fires from the front is a very significant finding considering the fact that in nearly half (48.78%) of the cases the shots were fired from contact or close range. Hence it shows the fearless attitude of the assailants and also their firm intention to kill the victims.

## **CONCLUSION**

Firearm injuries on the head as a method of homicide is quite common these days. The preference of rifled firearms over smooth

bore guns is due to their effectiveness even when fired from a distant range. In majority of the cases a single or two shots are fired targeting the head. Though nearly half of the fires are made from contact or close range yet the most common direction of fire was from front and right side.

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**TABLE 1: TYPE OF FIREARM USED**

Type	Cases	%
Rifled	30	73.17
Smooth bore	9	21.95
Could not be ascertained	2	4.88
Total	41	100

**TABLE 2: NUMBER OF FIRES RECEIVED ON THE BODY**

No. of fires	Cases	%
Single	16	39.03
Two	8	19.57
Three	6	14.64
Four	3	7.31
Five	2	4.88
More than 5	6	14.63
Total	41	100.00

**TABLE 3: NUMBER OF BULLETS RECOVERED FROM THE BODY (32 CASES)**

No. of bullets	Cases	%
Nil	16	50
Single	7	21.87
Two	5	15.63
Three	3	9.37
Four	-	-
More than 4	1	3.13
Total	32	100.00

**TABLE 4: MISSILES RECOVERED FROM SMOOTH BORE GUN CASES (9 CASES)**

Missiles	Cases	%
Only pellets	2	22.23
Pellets + Wad & Discs	3	33.33
Pellets + Wad Air Cushion	1	11.11
Pellets + Wad Disc + Air Cushion	3	33.33
Total	9	100.00

**TABLE 5: RANGE OF FIRE**

Range	Cases	%
Contact	3	7.32
Close	17	41.46
Near	2	4.87
Distant	19	46.35
Total	41	100.00

**TABLE 6: EFFECTS (OTHER THAN THE WOUNDS) ON THE BODY SURFACE**

Effects	Cases	%
Blast	7	17.08
Burning, singeing, blackening and tattooing	9	21.95
Blackening + Tattooing	4	9.75
Only tattooing	2	4.87
No specific effect	19	46.35
Total	41	100.00

**TABLE 7: DISTRIBUTION OF FIREARM ENTRANCE WOUNDS ON THE BODY**

Entrance wounds	Cases	%
Only on head	30	73.18
Head, face and other body parts	5	12.19
Through face and neck	6	14.63
Total	41	100.00

**TABLE 8: DISTRIBUTION OF FIREARM EXIT WOUNDS ON THE BODY**

<b>Exit wounds</b>	<b>Cases</b>	<b>%</b>
From head	17	41.47
From blast effect on head	7	17.08
From face and other body parts	5	12.19
No exit wound (Missiles recovered from cranial cavity)	12	29.26
Total	41	100.00

**TABLE 9: DIRECTION OF FIRE**

<b>Direction</b>	<b>Number</b>	<b>%</b>
Right to left	38	21.46
Left to right	20	11.29
Front to back	41	23.16
	19	10.74
Below Upwards	28	15.83
Above Downwards	31	17.52
	177	100.00