

## Case Report:

# An Unusual Bullet Track

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**In the recent era, the firearm trauma has increased tremendously. In addition highly sophisticated weapons are coming up everyday. This has brought a great variation in presentation of firearm injuries. The case being reported has an unusual & quite long track inside the body, the bullet entered through the posterior aspect of leg and recovered from the upper part of chest. As inferred from the wound of entry & the track, the posture of the victim at the time of the sustaining this injury appears to be lying straight on the ground.**

**Key Words: Firearm injuries, autopsy**

In the recent years the use of firearm weapons has increased tremendously, not only here but also in the other parts of the world. Our study the "Comparison of causes of death in males & females" revealed that out of 321 cases 41% died due to a firearm injury. The risk of death from a firearm in Canada is equivalent to the risk of death from a motor vehicle crash<sup>1</sup>. Sadowski et al says that firearm injuries are the second leading cause of death among the teenagers<sup>2</sup>. American Medical Associate Council on Scientific affairs has observed that one of the most troubling aspects of hand gun violence is that children often are the victims<sup>3</sup>. The majority of Americans who commit suicide use a firearm to do so<sup>4</sup>.

The wound complex produced due to a firearm projectile comprises of an entry wound, track and an exit wound. If bullet lodges within the body then the exit wound is missing. The line joining the entry wound & the exit wound or the place of rest of the projectile demarcates the track.

I am reporting a case of firearm injury caused by a rifled weapon. This case was examined on 5th July, 1997 by the Standing Medical Board of Lahore District which assembled at the Department of Forensic Medicine, King Edward Medical College, Lahore. The deceased was a well-built adult male. He had multiple entry & exit wounds on various parts of the body. The remarkable injury, which is the reason of reporting of this case was an entry wound on the calf of, left leg. It was lacerated wound measuring 7cm x 7cm with irregular inverted margins & collar of abrasion on lower part and situated on the posterior aspect of left leg 9cm above the ankle.

The track was explored & it was shown that the projectile after entering the body traveled upward through the muscles of the left leg & thigh & after fracturing the left hipbone entered the abdomen. It damaged the small and large intestines at various sites and perforated the cardiac end of the stomach through and through, shattered the left lobe of liver and after perforating the left dome of diaphragm entered into the chest cavity. It damaged left lung and perforated the heart through and through and lodged in the upper chest.

The interesting points which required the case to be reported are firstly the length of the track & secondly the interpretation of posture of the victim. The bullet has traveled almost the whole length of the body. This is an extremely uncommon finding that a bullet could have a chance of such a long course inside the body.

As inferred from the wound of entry & the track the posture of the victim at the time of sustaining this injury appears to be lying straight on the ground.

## Discussion

The direction of fire may be determined from external examination of the entrance wound and from the direction of bullet track within the body. A round bullet hole will indicate perpendicular hit and an abrasion extending from the margin of a wound will indicate that the shot was fired at an angle from the side of the abrasion. (5) In our case the presence of collar of abrasion in the lower part of wound of entry suggest a fire from foot end of the body.

From the examination of the wounds the pathologist may, in some instances be able to reconstruct the relative position of the firearm and the victim. Not only that but also some time it is also possible to draw conclusions about the posture of the victim at the time he was shot. The location of an entrance gunshot wound on the body and the site of lodgment of the bullet in the body vividly explained the posture of the victim at the time of shooting as seen in the case reported by Abdullah Fatteh. A 20 years old male was shot with a 0.38 caliber revolver by a girl. An entrance gunshot was found on the outer aspect of the lower third on the left arm. No exit wound was present. X-rays of the body revealed the bullet in the chest. The track of the bullet extended from the point of entry in the arm towards shoulder and continued through the axillary tissues to the 3rd left rib in the mid-auxiliary line. The bullet entered the chest after fracturing that rib. This pathway of the bullet clearly implied a raised position of the victim's arm at the time of shooting<sup>5</sup>.

In our case the site of entry wound and its track clearly indicate the firing on the victim in a straight lying posture.

The bullet usually travels through the tissues in a straight line so that direction of fire may be determined from its

track. In certain conditions, however, a bullet may be deflected from its course and this occurs most commonly when it strikes bone in its passage through the tissues. It can also occur due to inherent instability of a bullet as it penetrates tissues, and it may undergo changes of direction within soft tissues in its track. This is illustrated by a case reported by I. Gordon et al. A man was struck by a bullet which went through tissues in the following order: gall bladder, hepatic flexure of colon, duodenum, pancreas inferior vena cava, then passing medially through the bony part of the vertebral column, to strike the left kidney, spleen and pass through the diaphragm and pericardium, before coming to rest in the chest cavity. The only part of the track of bullet, which was in straight line, was through vertebral column, sharp ends occurred in the soft tissue track before and after<sup>6</sup>.

In our case although the bullet has taken a very long

course but it has not significantly deflected from its course.

#### References

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