

Case Report

Gunshot injury neck: an amazing case

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Abstract:

Introduction: In this era use of firearms has become more prevalent in society. There is increase in numbers of firearm homicidal and suicidal victims. Injuries from gunshot wounds of head and neck vary in extent and significance, forming a spectrum from trivial to life threatening lesions. The head and neck have many vital structures confined to a small area of body, and hence in the event of head and neck trauma, there is greater potential of leading to a fatality.

Case report: We report a case of homicidal gunshot injury (close range) sustained in the neck region, with the bullet having travelled through the neck without causing any mortality and little morbidity to the victim.

Conclusion: Penetrating through and through, gunshot injury neck without causing any mortality and any significant morbidity is a very amazing incidence.

Key words: Firearm, Gunshot, Bullet, Homicidal, Close range injury.

Introduction:

Now a day, use of firearm has become more prevalent. We are dealing more and more suicidal and homicidal victims of firearm injuries. Here we are reporting a case of civilian firearm injury at neck region, amazingly without causing any mortality and minimal morbidity to the victim.

Case History:

A 30-year-old male presented to us in the ENT outpatient department of M.B.S. hospital, with an alleged history of assault with a firearm in the neck region around 30-40 minute before. He sustained a close range bullet injury in the upper neck region. The entry site of which

was situated at the upper part of neck on the right side (approximately at the level of upper border of thyroid cartilage) (figure-1).



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There was exit wound for the bullet on the left side at the upper part of neck (above the level of entry wound) (figure-2).



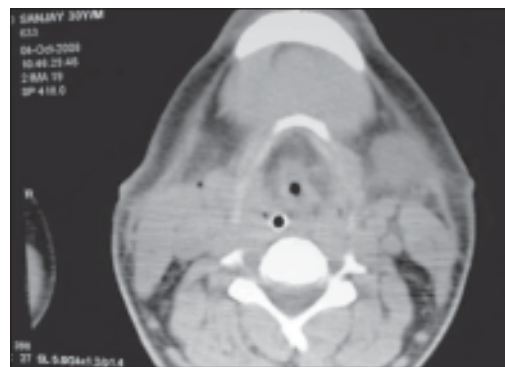
There was no any other injury anywhere upon the body. There was no history of immediate loss of consciousness. No histories of ENT bleed. There was history of bleed from the entry wound.

When the patient presented to us he was conscious and oriented, he was repeatedly complaining of difficulty in taking respiration. On examination the entry and exit wounds were obvious. There was very little bleeding from entry wound, there was not any haematoma in the neck region. He was in stridor. The entry wound was situated on the right side, at the upper part of neck, approximately at the level of upper border of thyroid cartilage. There exit wound for the bullet was situated on the left side at the upper part of neck, above the level of entry wound (photo enclosed). Mouth opening and tongue protrusion were normal and there was no ENT

bleed. There was not any associated faciomaxillary injury.

A soft tissue radiograph of the neck was taken which showed that there was not any foreign body (bullet) in the neck region. Patient immediately shifted to emergency operation theatre, where we did emergency tracheostomy. Then under general anaesthesia direct laryngoscopic examination done, which showed there was oedematous arytenoids and aryepiglottic folds. Secretions were there but they were not blood stained, suction clearance done. Vocal cords were not visualized because of supraglottic oedema. There was no breach of the pharyngeal or oral mucosa. Patient was successfully reversed from general anaesthesia and he was maintaining 98% saturation on room air.

After that the patient shifted for CT scan (figure-3).



It showed that there is small skin defect at the right side of neck (entry wound) and mild inhomogeneity of soft tissue suggestive of inflammatory changes. There was no trauma to any neck structure.

Patient received antibiotics, analgesic and steroids for few days. After few days the patient successfully weaned-up from tracheostomy tube and the closer of tracheostomy done. The patient discharged uneventfully.

Discussion:

Injuries from gunshot wounds of the head and neck vary in extent and significance, forming a spectrum from trivial to life endangering lesions.¹ The type and extent of tissue damage in gunshot wound varies from small wounds to large gaping wounds and this in turn depends on the type of weapon and the mass and velocity of the missile, and the distance from which it is fired. Most of the close range injuries have extensive and destructive effects on the tissues and thus should be considered in high energy blast injuries. The head and neck have many vital structures confined to a small area of body, and hence in the event of head and neck trauma, there is greater potential of leading to a fatality.² The vital structure of concern here includes the great vessels of neck (arteries and vein), nerves, airway, pharynx, spinal cord and bony tissues.

Based on the range, the gunshot wounds have been classified into three types. Type I injuries (long range, over 7 yards) penetrate subcutaneous tissues and fascia. Type II injuries (range of 3 to 7 yards) the wounds penetrate body cavities. Type III injuries (blast injuries, less than 3 yards) extensive soft tissue damage usually seen. Type II and III injuries are of major concern because, in these injuries the sufferer usually have extensive lacerated and contused wounds, with bony injuries. Gunshot wounds also leads to tissue oedema and they may become infected secondary to bacterial contamination due to communication with the oral or pharyngeal cavity. Radiographs and CT scan are important to evaluate the extent of injury and initial management.³ The retropharyngeal space needs special attention, to detect any air or fluid levels. Knowledge of the path of a bullet and how it terminates is critical for expeditious assessment and proper management of patient of gunshot wounds.^{4, 5} Bullet tracts in gunshot victims have been categorized in one of four ways-

- 1) Through and through.
- 2) graze (i.e. tangential without distinct entrance and exit wounds).
- 3) Retained in body with bullet palpable under skin.
- 4) Retained in body with bullet not palpable under skin.

The bullet tract in this case was of the first type with the bullet being traversed neck through and through. The possible tract was hard to define, because the bullet had managed to avoid the great vessels, nerves, larynx, pharynx, bony tissues. There was no significant bleeding, no injury to laryngopharynx, no sensory motor deficit. The victim survived with an uneventful recovery.

Conclusion:

Penetrating through and through, gunshot injury neck without causing any mortality and any significant morbidity is a very amazing incidence here we are reporting.

References:

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