

## CASE REPORT

## A WEIRD WAY TO SUSTAIN NEAR FATAL NECK INJURY, A CASE REPORT

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**ABSTRACT**

*Accidental injuries are common during festivals. With time, the traditional practices have been ill-defined and have turned out social misconduct and malpractice. Children and young adults barricade the road to extort money from the passerby in the name of tradition during festivals. Barricading roads occasionally results in loss of control over vehicles and falling down on the road sustaining trauma including neck injuries among the drivers. This is a report of a case of a young male biker who got trapped along the rope tied across the road and nearly strangulated to death.*

**Keywords:** Neck Injury; Malpractices; Strangulation

**INTRODUCTION**

Accidental injuries are common in festivals. Mahashivaratri is a Hindu festival celebrated all over Nepal and India in honor of Lord Shiva.<sup>1</sup> In Nepal, there is a common practice where children form small groups, use ropes/strings to create a barrier across the road to stop pedestrians, bikers, cyclists, drivers and any commuters for money.<sup>2,3</sup> These ropes used can accidentally cause injuries to different parts of the body including strangulation which may lead to serious injury including death.<sup>3</sup> This practice is highly prevalent in many parts of Nepal including Chitwan, it may result in a grievous accident which general people are unaware of. This case report presents an unusual accidental strangulation of a 19-year-old biker during Shivaratri due to the road-barricading practice.

**CASE PRESENTATION**

A 19-year-old male with no co-morbidities presented in the Emergency Department of Chitwan Medical College Teaching Hospital with a history of strangulation and complaining of pain and abrasion on the anterior aspect

of the neck. He was riding a scooter that accidentally got entangled into a rope stretched across the road approximately at a height of 3-4 feet by kids during the day of Shivaratri. He immediately fell from the scooter and sustained injury over the neck, chest and back. There was no history of bleeding from the ear, nose and throat, loss of consciousness and vomiting.

On initial physical examination, his vital signs were: blood pressure 140/90 mm Hg, temperature 97.6 °F, pulse rate 106 beats/min, respiratory rate 22 breaths/min and oxygen saturation 99% on room air. Local examination showed multiple bruises over the anterior aspect of the neck. (Figure 1) He was anxious with no other neurological signs. Other systemic examination findings were normal. Complete blood count, serum electrolytes, renal-liver function tests, and ECG were normal.

The patient was diagnosed with traumatic neck strangulation initially. Airway, breathing and circulation were secured and a Philadelphia collar was applied on

neck. Non-contrast computerized tomography scan of cervical spine was done which showed normal bone alignment and normal soft tissues. He received injection tetanus toxoid, tramadol and ondansetron. He was admitted to ward for further management. He was managed symptomatically with intravenous antibiotics (Ceftriaxone 1 gram for 4 days and oral cefixime for 5 more days), intravenous steroids (Dose of hydrocortisone is 100mg for 2 days) and oral anti-inflammatory drugs (Paracetamol and Ibuprofen). Ointment mupirocin was applied over the abraded wound thrice daily. Oral intake was permitted as tolerated. A gradual improvement was observed in his condition and wound site. He was discharged home on fourth day of admission.



**Figure 1: Victim on admission showing bruises on neck**

## DISCUSSION

Nepal is basically a Hindu country with lots of festivals, rituals and practices. With time, several rituals and traditions have been inaccurately explained and practiced. During Shivaratri and other festivals, people barricade the road with strings and ropes for money.<sup>1,3</sup> Unfortunately, these sort of practices could be proved fatal and dangerous.<sup>4</sup> Several riders have sustained injuries due to fall due to various practices during festivals.<sup>5,6</sup>

Neck injuries can be classified as penetrating (as in stabs and gunshot wound), blast or blunt injuries. Similarly, there is Roon and Christensen's classification to describe the site of cervical trauma into three zones.<sup>7</sup> All three zones contain major vascular and aero-digestive structures. The most commonly injured area is zone 2, which can easily be accessed surgically. However, in zones 1 and 3 injuries, exposure and vascular control are more difficult to achieve and hence, are both diagnostically and surgically more challenging.<sup>8</sup> There may be delayed presentation of laryngeal, vascular, and digestive tract injuries if blunt trauma occurs. In addition, a shoulder harness (seatbelt) may also be responsible for shearing trauma to the

anterior neck. In near-hanging or strangulation, external neck pressure causes cerebral hypoxia due to venous and arterial obstruction.

Roads are meant for smooth and free passage of traffic and commuters. Getting stopped at every few meters is bothersome, troublesome and pain for commuters. When an obstruction is expected ahead e.g. due to ongoing construction or narrow lane or bridge, proper warning road signs are kept well ahead. Commuters, especially the bikers, are taken by surprise when they find a rope stretched across the road at the least expected sections. An unstable vehicle, a two-wheeler is, the rider falls down and sustains injuries as most of his body parts are exposed other than the head which is protected by helmet. Several riders have sustained injuries due to fall.<sup>5,6</sup>

Roon and Christensen classified site of cervical trauma in three groups. The neck contains three principal anatomic components viz. vascular (which includes carotid, vertebral and sub-clavian arteries; jugular and sub-clavian veins), digestive (pharynx and esophagus) and respiratory (larynx and trachea). Zone I extends from sternal notch/clavicle to cricoid cartilage; zone II from cricoid cartilage to angle of mandible and zone III from angle of mandible to base of skull. All three zones contain major vascular and aero-digestive structures.

Neck is one of the most important parts of the human body with so many vital organs including air passage, part of food passage, several large vessels, spinal cord and a number of nerves.<sup>9</sup>

Injuries in the neck can be fatal or debilitating for life. The subject in the case report has been fortunate because he had been riding slower. Had he been faster, the impact would have been more severe resulting in grievous injuries including on-spot death. A case of accidental strangulation was reported in India in which the floating end of the 'saree' of the pillion rider of two wheeler got entangled in moving rear wheel and constricted her neck.<sup>10</sup>

## CONCLUSION

Our traditions, culture and practices encourage happiness, longevity and betterment of the livelihood of the masses. It's not only embarrassing but it's a crime if someone loses his life or undergoes pain because of the practices have been unfairly modified. General public is not aware of the aftermath of practices like these. It's a high time people are educated about this and encouraged to abandon self-modified practices like these.

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