

Case Report

Diagnosing injuries caused by Indian wild boar: A case report

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Abstract

Wild boars are medium sized mammals commonly seen in Europe, Asia, North Africa and Greater Sunda Island and India. *Sus scrofa cristatus* species is commonly seen in India. They are primarily nocturnal animal and are generally shy in nature, so incidences of attack by wild boar are rare. They are dangerous due to their razor sharp tusks, which can cause serious injuries. Wild boar attacks are under reported in the medical literature. Attacks on humans by wild animals causing fatal injuries are not uncommon in rural and forest areas of India. This is the case of a 55-year-old male farmer who was assaulted from by an adult wild boar. Autopsy examination revealed multiple penetrating injuries, bilateral rib fractures and an anorectal injury. Unlike the injuries inflicted by wild cats, canines and bulls, the hallmark of boar attack is the infliction of multiple penetrating injuries to the lower part of the body. As the victims of wild boar attack are usually recovered from rural forest areas, the investigating officers could be misled as to the nature of infliction of these multiple, fatal penetrating injuries to a possible homicide. This case is reported for its rarity, for the awareness of the possible injuries in such unnatural deaths, and for the factors predisposing to a boar attack. It is concluded that fatal penetrating injuries caused by this type of attack can be associated with extensive soft-tissue damage despite externally appearing to be simple puncture wounds.

Keywords: Wild boar, penetrating injuries, anorectal injury.

Introduction

The Wild Boar is a medium-sized mammal with a large head and front end, which leads into a smaller hind¹. Indian wild boar well known to be a wild pig resembling the domestic pig in country region. Wild boar belongs to the Kingdom Animalia and Phylum Chordata, biological name to be called as *Sus Scrofa Cristatus* and belonging to family Suidae.¹

Indian wild boar weighs around 100kg by average and even some of its species would range a weight of 225 Kgs.

Adult boars can measure from 90-200 cm (35 to 79 inch) in length, not counting a tail of 15 to 40 cm (5.9 to 15.7 inch), and have a shoulder height of 55 to 110 cm (22 to 43 inch)^{2,3}

The Indian wild boar is found during the day in high grass or bushes, sometimes in forest and often in high crops the females and young as a rule associating in herds or "sounders" usually of ten or a dozen, and rarely exceeding about twenty individuals, whilst the adult males keep apart.⁵

The top tusks are hollow and act as a permanent whetstone against which the lower tusks are continually sharpened. The lower tusks are indeed extremely sharp. Tusks can reach 5.5 to 6 cm in length. Females do not grow the upper 'sharpening' tusks as do the males, and their lower tusks are smaller, 2.5 to 3 cm long. Female 'tusks' are still quite sharp, but do not protrude from the lip, as they do in the males.³ (Figure 1 & 2)

Although wild boars do not generally pose a threat to people, they occasionally attack humans. Due to the clearing of natural boar habitats, the number of interactions, including aggressive ones, between humans and boars has increased. When dealing aggressively with human, boars will charge at them. When ramming into a person, the boar will slash the tusks upwards, creating sizeable open lacerations on the skin. Due to the height of the boar relative to a human, most wounds are inflicted to the up-

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per legs, fatalities do occasionally occur.⁴

Wild boar attacks are under reported. There are very few cases of human attack by wild boars mentioned in literature. Herein, we present a case of wild boar attack that resulted in multiple penetrating lacerations and we discuss interpretation of such injuries.



Figure 1: Showing top tusks of Indian wild boar. [Image source: https://en.wikipedia.org/wiki/Indian_boar].²



Figure 2: Showing front view of adult Indian wild boar. [Image source: Kaushikkmurthy @ wildlife photography]

Case Report

A 55 year old male was brought to R.L.Jalappa hospital, mortuary for postmortem examination. As per inquest form deceased was residing in a village of Kolar district, left home for collecting dried branches of trees in forest.

After 19 hours, the family received information that elderly male body was found lying dead in prone position in the outskirts of village. At the scene of crime the body was found in semi naked condition with intact t-shirt, shorts, towel and slippers were found 3 to 4 meters away from the body.

Autopsy findings

The dead body was that of an elderly male,

moderately built and moderately nourished with a height of 5.4 m and weight of 54 kg.

External examination revealed the multiple penetrating lacerated wounds on lower part of chest, front of abdomen, perineum, ano-rectal region and postero-medial aspects of thighs (Figure 3). The wounds are directed obliquely upwards and medially, with tailing on lower lateral end for 0.3 cm, edges of injury were rugged red. Multiple scratch abrasions over front of lower abdomen and thighs, of varying size from 2.1 cm x 0.2 to 6 cm x 1.1 cm (Figure 4).

On internal examination, there was contusion with infiltration of blood in muscles over mid sternal area and bilateral hemothorax was seen as a result of bilateral multiple ribs fractures. All the internal organs were intact and pale. The viscera and blood were collected and sent to chemical analysis, results turned out to be negative for poison.

The cause of death was attributed to hemorrhagic shock due to multiple injuries sustained.



Figure 3: Showing typical penetrating lacerated wound (14cm x 7cm x 2cm) on posteromedial aspect of left thigh.

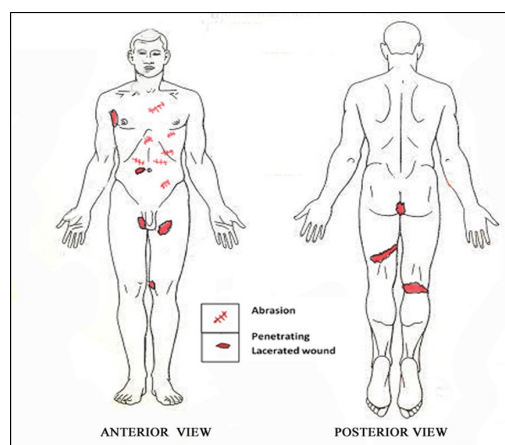


Figure 4: Visual summary of the patterns of injuries resulting from fatal attacks by wild boar

Discussion

Death due to attack by wild boar is very rare. According to the literature, the most frequent site of injury among reported cases of wild boar attack was the posterior thigh.^{3-5,7} However, wild boar wounds can be fatal.

There are four reported cases of deaths due to wild boar attacks, with the cause of death being single fatal penetrating lacerated wound damaging femoral artery, multiple abdominal penetrating injuries, cranio-cerebral injury, hemorrhagic shock due to lacerations to thigh by wild boar tusk, also named them as tusk injuries.^{3,5-7}

Gunduz et al related this pattern of injuries to the physical characteristics of the wild boar. This is possibly due to the shoulder height of an adult wild boar, which is 90 cm on average, which approximately corresponds to the height of the thigh.⁴

In contrast to previous reports of Manipady et al , Shetty et al and Akhade et al there was only single fatal injury affecting thigh region.^{3,5,6}

The repeated nature of attack continues until the victim is completely incapacitated owing to multiple penetrating injuries, which can have fatal consequences. As the boar continues its assault while the victim is on the ground, secondary lesions can occur in any anatomical location depending on the relative position of the victim.^{9,10}

In the present case, there was multiple attacks by the wild boar causing the multiple penetrating lacerated wounds and scratch abrasions. The medial side of wound seemed to be caused by the lower tusk whereas the tailing represents injury while removal of lower tusk. Rib fractures could be secondary injuries as mentioned in previous literature. This indicates that the boar attack was an offensive act and was not defensive in nature, which is contrary to Akhade et al study³. The penetrating injuries inflicted by the wild boar is in below and upwards due to the anatomical position of the tusks.⁸

In the present case, the multiple penetrating injuries suggest that it is not single wild boar attack and the place of incident was at the border of agricultural field which was adjacent to forest the normal habitat of the wild boar. Therefore, the people living in similar geographical surroundings are vulnerable to attack by wild boar.

Conclusion

This is the first known case report concerning tusk injuries from this part of the state. The Injuries in victims of wild boar attack are usually typical in nature and its diagnosis plays vital role in ruling out possibility of homicide. Accordingly, close observation and accurate interpretation of injuries is the need of the hour for forensic experts to confirm the possibility of attack by wild animal like wild boar. The rural areas with wild boar population should be alerted and humans travelling alone in such areas should be prohibited.

References

1. Wild Boar *Sus scrofa* Linnaeus. <https://eol.org/pages/328663>. Last accessed: 12 June 2020.
2. Indian wild boar. Available at: https://en.wikipedia.org/wiki/Indian_boar. Last accessed: 12 June 2020.
3. Akhade SP, Rohi KR, Phad LG, Dixit PG. Fatal Penetrating Lacerated Wound By Tusk of Indian Wild Boar. *J Indian Acad Forensic Med* 2015;37(1):100-2.
4. Gunduz A, Turedi S, Nuhoglu I, Kalkan A, Turkmen S. Wild boar attacks. *Wilderness Environ Med* 2007; 18:117-9.
5. Manipady S, Menezes RG, Bastia BK. Death by attack from a wild boar. *J Clin Forensic Med* 2006; 13:89-91.
6. Shetty M, Menezes RG, Kanchan T, Shetty BS, Chauhan A. Fatal cranio-cerebral injury from wild boar attack. *Wilderness Environ Med* 2008; 19:222-3.
7. Tumram NK, Dhawne SG, Ambade VN, Dixit PG. Fatal tusk injuries from a wild boar attack. *Med Leg J* 2015;83(1):54-6.
8. Gudmannsson P, Berge J. The Forensic Pathology of Fatal Attacks by the Large Mammals Inhabiting the Nordic Wilderness—A Literature Review. *J Forensic Sci* 2019; 64(4):976-81.
9. Nagasawa H, Omori K, Maeda H, Takeuchi I, Kato S, Iso T et al. Bite Wounds Caused by a Wild Boar: A Case Report. *Wilderness Environ Med* 2017; 28:313-7.
10. Kose O, Guler F, Baz AB, Akalin S, Turan A. Management of a Wild Boar Wound: A Case Report *Wilderness Environ Med* 2011; 22: 242-5.