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Bear Mauled Case in Eastern Regional Hospital, Mongar, Bhutan: A Case Report

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Abstract: Bhutan is the first carbon-negative nation and is situated in the eastern Himalayas, one of the ten biodiverse zones in the world. About 69.71% of the country's total land area is covered by forests. (https://kuenselonline.com/timber-harvesting-main-cause-of-forest-health-decline/) As a result of having as much forest as possible, wildlife species of ecological and cultural significance are sufficiently safeguarded. The Bhutan biological dialogue complex protects and manages conversation parks on about 51.32 percent of the county's land area.

Although they are rare, bear attacks can leave victims with lethal wounds. Our patient, a 45- year-old man from northeast Bhutan, was attacked by a Himalayan Black bear (Ursus thibetanus). His cheeks and ears were among the many places where he was hurt. He sustained wounds resembling those from mauling documented in the existing literature, and their recovery required both quick interventions and a multidisciplinary plan.

Keywords: *Animal Attack, Bear Maul Injuries, Himalayan Black Bear, Management.*

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I. INTRODUCTION

There are eight major bear species in the world today: brown (grizzly) bear, American black bear, Asian black bear, polar bear, Malayan bear, Sloth bear, big panda, and spectacled bear. In Bhutan, the most common bear spotted is the Himalayan black bear (Ursus thibetanus) also known as the Asiatic black bear. (1) The Himalayan black bear is usually black in color with a white or cream-yellow crescent moon chevron on the chest adult bear, measures 120-190 cm in length, and weighs about 40-135 Kg. (2)

When a black bear feels threatened, then it may attack. Usually, wildlife attacks are classified into three categories: sudden, human provoked and predation. Among them, sudden attacks are more common and less fatal. (3,4) According to WWF (World Wild Life) Bhutan, forests cover 71 % of the total geographical areas of the country. However, given the proximity of their habitat to populated areas, human–bear encounters are becoming increasingly common.

However, given the proximity of their habitat to populated areas, human-bear as well wildlife conflicts in the kingdom of Bhutan encounters are becoming increasingly common. (5)

Climate change has been attributed to the surge in bear attacks and the growing number of wild animals leaving their natural habitat in search of food. Encounters with bears are occasionally fatal. (6) According to the reports in the local newspaper between 2015-2019 there were 34 cases of bear maul injuries in which few were airlifted and mostly were treated at National Referral Hospital, Thimphu. (7) The present study aims to discuss the care of a 45-year-old man attacked by a Himalayan black bear in light of the existing literature.

II. CASE REPORT

A 53-year-old man was transported by EMS (Emergency Medical Services) to the emergency department of the Eastern Regional Referral Hospital, Mongar, Bhutan at around 10 hours after being assaulted by a Himalayan black bear while herding cattle in the forest. The patient was first taken to the nearest basic health unit (BHU) where he was conscious with a Glasgow coma scale (GCS) of 15/15 and stable vitals before referral.

The patient presented with several facial lacerations affecting various areas including the mouth, medial canthus of the left eye, left cheek, and left ear. Additionally, there was a deep laceration on the left leg. The facial wound was actively bleeding from both the nose and oral cavity (Fig.1.). Medical assessments, including a complete blood count and computed tomography (CT) scan, were performed. The blood parameters indicated no significant abnormalities, except for

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a hemoglobin level of 7.8mg/dl. The CT scan revealed multiple fractures of the nasal septum, as well as comminuted fractures involving the left maxillary bone and ethmoid bones.

The patient received prompt administration of nor-adrenaline and was initiated on intravenous fluid resuscitation using ringer lactate normal saline and broad-spectrum antibiotics. Meanwhile, an anti-rabies and tetanus toxoid vaccination was initiated. To address the patient's blood loss, 1 unit of packed red blood cells was transfused. Subsequently, the patient was transported to the operation room (OT) for further medical intervention.

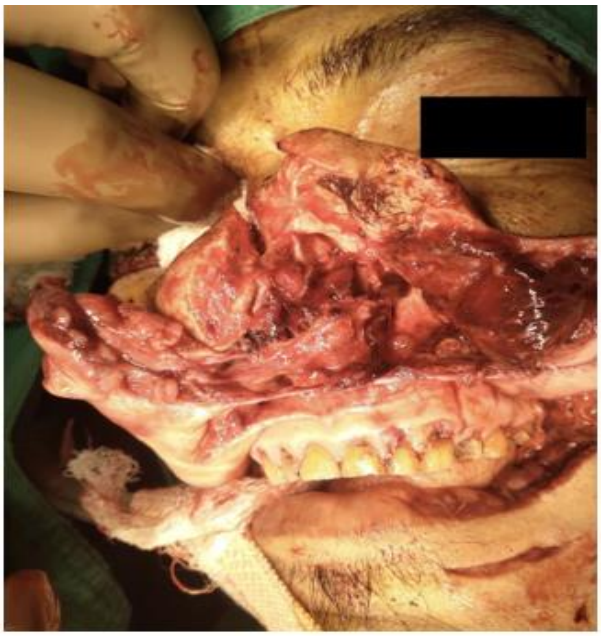

Fig 1. Deep Lacerations Exposing Facial Muscles Involving the Nose as Well Ear (Right Side)

III. MANAGEMENT

A fundamental protocol was used to handle the case. After gaining access to the airways, breathing, and circulation, bleeding was stopped by placing the anterior nasal pack with paraffin. The wounds were completely debrided and irrigated with normal saline. The bipolar cautery was utilized for bleeding points and ligated using 0.2 silk sutures. The patient was moved to the Intensive Care Unit (ICU) for close monitoring and ventilator support.

The next day one more unit of PRC was transfused, and the patient was taken to Operation Theater for management of the mounds. Under general anesthesia the wounds were thoroughly and meticulously cleansed, debrided and irrigated. The skin edges were freshened and sutured in layers with 3.0 Vicryl and 4.0 nylon. Simultaneously, the nose and the nasal bridge were also sutured in layers. The left leg wound underwent complete irrigation, debridement, washing with normal saline, and two-layer repair using 3.0 Vicryl for muscles and 3.0 nylon for the skin (Fig 2). As there was no evidence of displaced fractures, the maxillary bone, ethmoid bone, and nasal septum fractures were not treated.

Following surgery, the patient received intravenous fluids comprising normal saline and ringer lactate at a rate of 100mg per hour. Intravenous morphine (4 mg, 6 hours per day) and paracetamol (600 mg, 8 hours per day) were used to treat the pain. Intravenous antibiotic was used to cover the possible infection. The vitals were monitored regularly, and they were within the normal range. The patient's skin sutures were removed on the sixth day after admission, and the hemoglobin level was 10.6 g/dl when the patient was discharged. He was given prescriptions for two courses of iron and folic acid to be taken continuously for two weeks, and a capsule of cloxacillin 500 mg to be taken six hours a day for five days after being released. Follow-up later revealed total recovery, as depicted in Fig. 3.

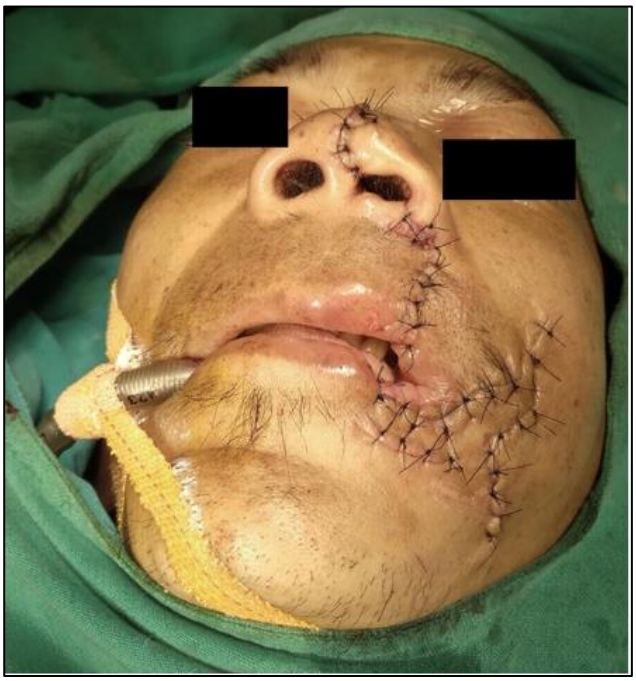

Fig 2. The Extraoral Wound Closure

IV. DISCUSSION

Usually, it's said that sudden bear-human encounters due to bears trespassing into human territory to find food or people entering the bear habitat can cause serious injuries and, at times, fatalities. In the event of any bear encounter, the bear first attacks or attempts to attack the face, head, and upper extremities, which are characteristic features that distinguish bear attacks from those of other animals. (8)

A multidisciplinary team manages patients, including a general surgeon, plastic surgeon, ENT surgeon, oral and maxillofacial surgeon, and ophthalmologist. Ideally, plastic surgeon has to do the reconstruction for better aesthetic result, but in its absence oral and maxillofacial comes handy as in our case. Our facility do not have a plastic surgeon.

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Fig 3. Post-Operative Picture After a Year

V. CONCLUSION

In Bhutan, bear mauling cases are rather prevalent. Many instances go untreated or seek treatment extremely late due to the remoteness of the places and the dearth of tertiary healthcare facilities in the nation. The patient will experience psychological distress as a result of the impairment of function and residual deformity. In light of this, prompt, careful, and expert maintenance is crucial.

In the future, raising awareness, educating individuals about the issue, providing them with the necessary information, and implementing preventative measures that do not jeopardize the safety of both humans and other animals may prove to be the most effective approach to managing and reducing instances of wildlife conflict with the human population.

- *Conflict of Interests*

The authors declare that they have no competing interests.

- *Patient Informed Consent*

The consent form was obtained from the patients before the article.

REFERENCES

[1]. Stains, H. James and Lariviere,. Serge (2023, July 11). *bear*. *Encyclopedia Britannica*. https://www.britannica.com/animal/bear
[2]. Rasool A, Wani AH, Darzi MA, Zaroo MI, Iqbal S, Bashir SA, et al. Incidence and pattern of bear maul injuries in Kashmir. Injury. 2010;41(1):116–9. http://dx.doi.org/10.1016/j.injury.2009.07.077
[3]. Herrero. Bear Attacks: their causes and Avoidance. 3rd ed. Guilford, CT: Globe Pequot: 2018.
[4]. Freer L. Bear Behavior and attacks. In: Auerbach PS, ed. Wilderness Medicine. 7th Ed. Philadelphia, PA: Elsevier; 2017:674-86.
[5]. Mize CH, Dorji L, Zafren K. Emergency airways after Himalayan Black Bear attacks in Bhutan. Wilderness Environ Med. 2019;30(4):421–4. http://dx.doi.org/10.1016/j.wem.2019.08.003
[6]. Yilmaz A, Hosukler E, Erkol Z, Gundogdu H, Celme H, Turan T, et al. Old female case who died as a result of bear attack. Med Sci (Turkey). 2021;10(2):623. http://dx.doi.org/10.5455/medscience.2020.08.174
[7]. https://kuenselonline.com/bears-on-the-prowl
[8]. Ram R. Maxillofacial Injuries due to Bear Mauling. J Maxillofac Oral Surg. 2011;10(1):85–
[9]. http://dx.doi.org/10.1007/s12663-010-0126-4