

The wild animals bite injury, causing strangulation of small intestine: a case presentation

Abstract

Background: The attack on humans by bears is a relatively rare event, and the intent is always defensive. Bears are strong, agile, potentially dangerous and unpredictable mammals inhabiting jungle, sanctuaries, and provinces. As a result of de-forestation, bears, along with other wild animals are enforced to enter into human inhabitations and Para-jungle areas such as farms, sanctuaries etc. Their encounter with humans in above situations is inevitable. The attack by the bear can cause extensive soft tissue and bony destruction that may lead to the death of the victim or serious life-threatening injuries. Injuries due to bear mauling are rarely reported in the literature.

Method: This article provides an insight into the injuries sustained by an attack of the wild bear, at Bastar region. This geographic region in Chhattisgarh (India) has got extensive forest cover. The villagers depend for their livelihood on timber and non-timber forest products. Thus they are exposed to attacks by wild animals including Bear.

Results: A case of bear bite injury is presented here. The injured part was anterior abdominal wall causing prolapse of the small intestine through the wound. The prolapsed intestine got strangulated. It required emergency laparotomy, resection of strangulated bowel and end to end anastomosis.

Discussion: This case is presented because injuries by wild bear constitute less than 0.1% of all animal bite injuries. The usual pattern of injury is to face and limb, and much less frequently to the abdomen. An extensive search of the literature done, but bear bite injury presenting as strangulated bowel, is not reported in the literature.

Keywords: bastar region, bear attack, strangulation, wild animal bite, visceral injury

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Clinical case presentation

A patient named y, 45years, male, presented to the emergency department, referred from a primary health centre, with the history of animal bite injury to the anterior abdominal wall. He gave the history of wild animal bite to the anterior abdominal wall, while, he went to the forest to fetch burning wood. On examination the condition of the patient was stable. The blood pressure was 100/70mm, pulse around 100/minute. On local examination, there was a lacerated wound in the anterior abdominal about 2-3cm below the umbilicus and from the wound, there was prolapse of loops of small intestine. The prolapsed loop was measuring 10inches long, brown-black in color with no visible peristalsis. An emergency laparotomy was planned. The basic investigations carried out. Preoperative workup consisted of IV fluids, antibiotics, Anti-rabies vaccination and analgesics. The peritoneal cavity opened by extending the lacerated wound on the anterior abdominal wall. It was found that a loop of small intestine, around 10inches long, was caught and strangulated in the narrow wound of the anterior abdominal wound. The small intestine traced and inspected from DJ junction to ileo-caecal valve. A loop of it, in the mid-small intestine, was found strangulated. The distinction between viable and non-viable part established. The non-viable and strangulated bowel excised, and end- to- end anastomosis done. Recovery was uneventful and the patient was discharged on the tenth postoperative day after removal of stitches (Figure 1).



Figure 1 Small intestine showing viable and non-viable bowel loops.

Discussion

Bear is strong and agile wild animal, potentially dangerous, unpredictable and can inflict serious injuries. Mammalian attack injuries have a special place in traumatology, because of their high complication rate when compared with, similar soft tissue wounds otherwise caused. A WHO-sponsored epidemiological study of animal bites in India done by MK Sudarshan et al.¹ covering a population of 53,731 revealed bear bite injury around 0.1% of total victims only.¹ Although the Bear attacks constitute only 0.1% of all animal attacks in India, their prevalence is quite alarming in Bastar

district besides injury by other wild animals. Three species of bear are found in India. The Himalayan black bear, the brown bear and the sloth bear. The sloth bear and brown bear are common in this region of the country. The greater prevalence of injuries to the middle-aged population could be explained by their working out-doors majority of the time. Outdoor activities were found to have a relationship with attacks in other studies also, where hunters, hikers and campers were the victims.^{2,3} Men are the victim of injury in more than 73% of cases because of the same reason.³⁻⁵ The injured victims mainly belong to rural areas which are similar to the epidemiological study of animal bites in India.^{1,2} The commonly involved injury sites being the face (80.57%) and head (54.67%).⁶ Bite wounds by large animals can present in a more serious fashion with bony injuries. The bony injuries may be associated with soft-tissue trauma namely puncture, lacerations and avulsions with or without actual tissue loss.⁷ Visceral injuries from the bear mauling in the form of injury to the brain, eyeballs, salivary glands, abdominal organs have been reported.³⁻⁹ Patil SB et al.¹⁰ received no patients with abdominal, chest, viscera or brain injuries.

The case is presented here because it highlights following interesting facts:

- i. The wild animal bite is a common injury in villagers because their livelihood is dependent upon timber and non-timber forest products;
- ii. In the attack by the wild bear, injuries are due to sharp and long nails rather than tooth. They attack the human being if feels threatened or if their area is encroached upon;
- iii. In the present case, the injury is more likely due to sharp nails rather than tooth bite;
- iv. Although the injuries caused by the wild animal are common, it causing intestinal obstruction and strangulation is not reported.

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Conflict of interest

The author declares no conflict of interest.

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