

A severe Scrotal and chest injury due to Bull horn: Two case reports managed at Primary health care hospital

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ABSTRACT

Bull horn injuries are not common in a city set up but are common in the rural areas. The range of injuries varies from abdominal, chest, scrotal injuries and they are different from the usual injuries seen in the emergency and casualty like road traffic injuries and stab injuries. We describe here two cases of bull horn injuries managed in this peripheral hospital one involving the scrotum and the one involving the chest, both involving domestic bulls.

Keywords: Bull horn injury, trauma, scrotal injury

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INTRODUCTION

Bull horn injuries are commonly seen in rural areas but are less commonly seen in an urban setting^{1,2}. The Bull is normally a docile and easily domesticated animal, May sometimes become angry for no obvious reason^{2, 3}. The commonest site of injury in bullhorn cases is the abdomen and perineal region¹⁻⁴. The injuries predominantly occur on right side of abdomen^{2, 4}. The reason for perineal involvement is its anatomical configuration leading horn hook to engage and penetrate². The wounds produced are contusions, lacerations, penetration of body cavities and rarely fractures. The maximum numbers of injuries

are sustained in villagers while rearing the cows and bulls, during feeding, while tying them or milking the cows or buffaloes^{2, 5}.

CASE 1

69 years old patient from Nepal presented with Scrotal swelling following a bull horn injury on his scrotum back, by his own domesticated bull .Patient had already hydrocoele left side .He was give first aid in Nepal and he reported to this hospital 07 days after the injury. He was evaluated at this hospital and on examination had bilateral scrotal cellulitis and bilateral haematocoele (Rt.>Lt).Transillumination test was negative (Figure 1).



Figure 1: Clinical presentation of case

Apart from a Hb level of 7 gm %, his other blood and urine reports were within normal limits .An Ultra sound of the scrotum done showed an extensive scrotal cellulitis with pockets of necrosis ,with haematocoele (right) and hydrocoele (left) (Figure 2).

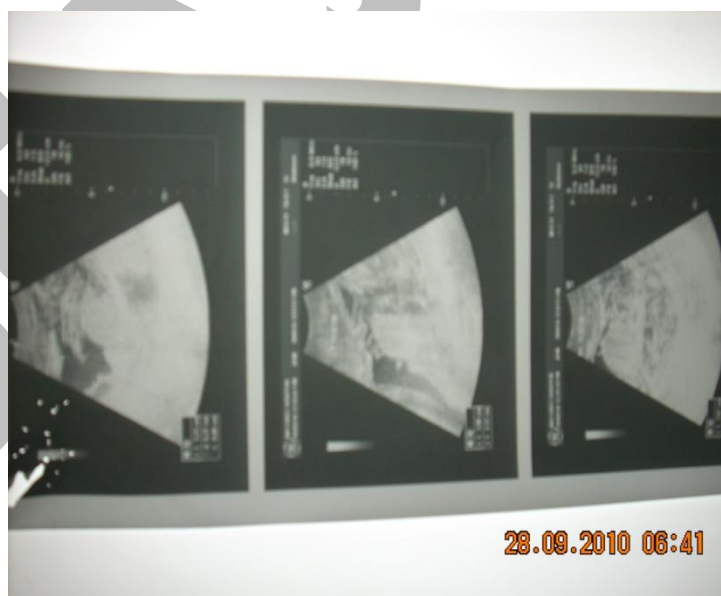


Figure 2: Ultrasound scrotum of affected part

He was operated under spinal anaesthesia. A thorough wound debridement, evacuation of Rt. side haematocoele and aversion of sac on the left side was done (Figure 3) and (Figure 4). He was also given two units of blood also.



Figure 3: Evacuation of hematoma



Figure 4: Post surgery

The wound was left open, followed by dressings and was closed by secondary suturing on the 8th post op day (Figure 5). He was discharged after suture removal.



Figure 5: After Secondary suturing

CASE 2

A 60 years old patient was admitted in this hospital with history of being hit by his bull on the left side chest .He reported to this hospital on the same day. He was evaluated in this hospital. On examination his pulse was 92/mt., BP 140/84. There was tenderness on the left side chest along with crepitus and clinically there was fracture left side ribs also. The breath sounds was reduced on the left side. There was no dyspnoea.

There was extensive surgical emphysema also. Abdominal examination done showed minimal tenderness on the left hpochondrium. X ray chest done showed extensive surgical emphysema, fracture 6-8th ribs left and haemo-pneumothorax left (Figure 6).

Ultrasound abdomen and chest done showed no intra abdominal injuries and same findings as chest X-ray .Because of extensive surgical emphysema the extent of haemopneumothorax could not be

appreciated. Apart from this patient's condition was stable so, he was further evaluated by CT scan chest and abdomen on the same day. CT scan chest showed haemopneumothorax left and fracture 6-8th ribs left (Figure 7).

A chest tube was inserted, with under water seal on the same day (Figure

8). Around 750 MI blood was drained and the patient was managed with antibiotics and other supportive therapy and the chest tube was removed on the 7th day. The patient was discharged on the 10th day.

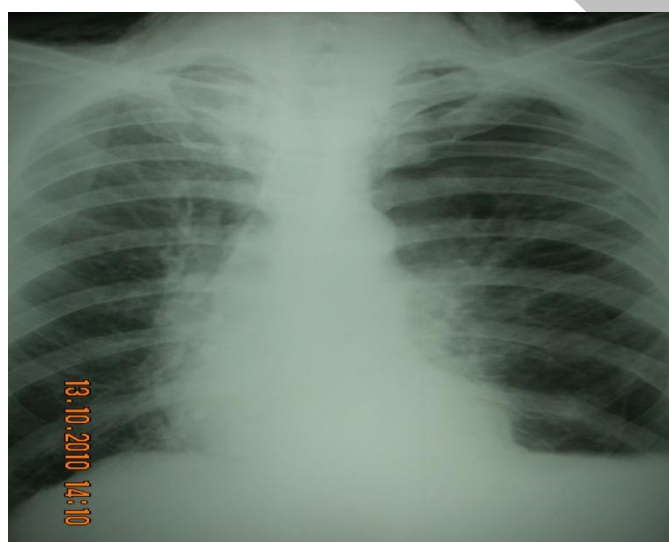


Figure 6: X-ray chest

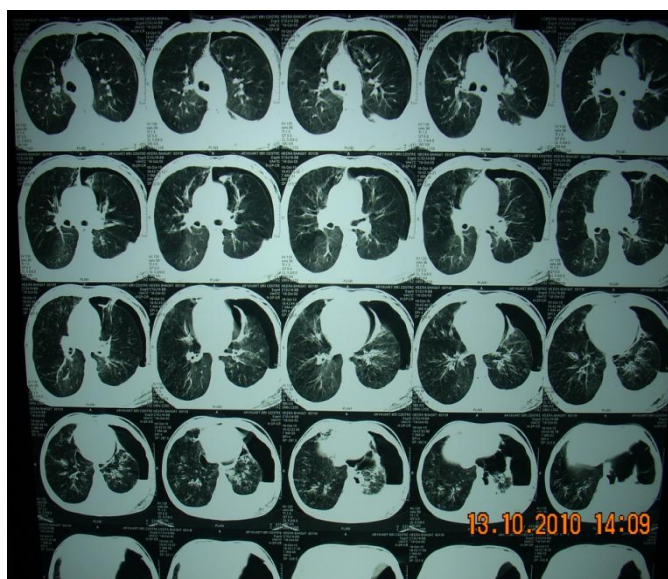


Figure 7: CT scan chest showing haempneumothorax left

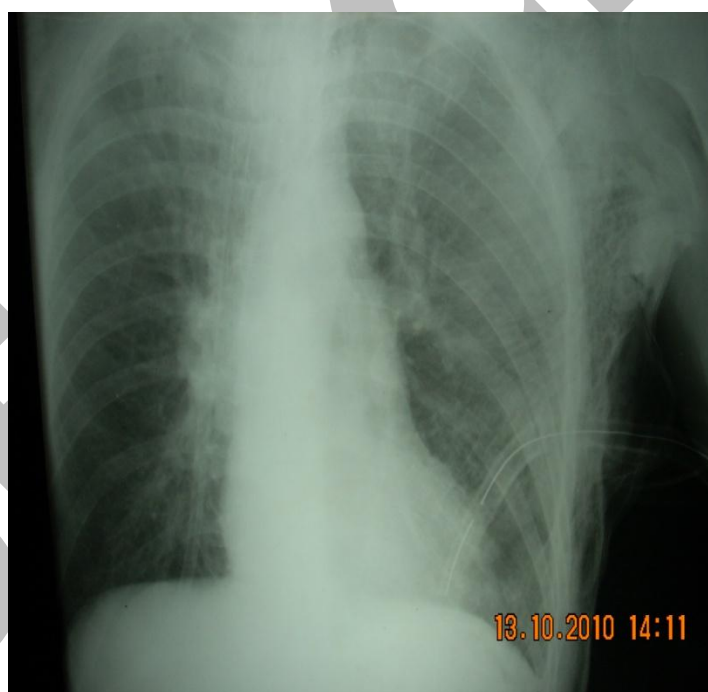


Figure 8: After chest tube insertion

DISCUSSION

Goring is taken when the bull horn penetrates deeply in the muscles as well as body cavities [2, 6]. The wounds produced due to bull horn impact vary from contusions, lacerations, and penetrating wounds involving internal organs to fractures [5-7].

In India, Bull gore injuries are frequently observed in villages but incidences related to deaths from bull gore are infrequently seen in Metropolitan cities. In some countries like Spain it's seen during bull fighting [8].

The injuries are seen more commonly seen involving the abdomen and the perineum [1-4, 6, 7, 9]. In the abdomen, the horn first tears the subcutaneous tissues and later muscles and further if the violence is more, the peritoneum is punctured [2,5]. Since the head of bull is at the same level as victim's abdomen, this part of body is most exposed to the attack [2, 3].

In the bullring, the bullfighters most commonly sustain injuries on the abdomen [8]. These injuries can be in the form of perforations of abdominal wall, and internally hemorrhages and perforations

involving mesentery and bowels [8-10]. Visceral injuries involving spleen and more frequently liver being situated on right region of body are commonly encountered.

In the perineum the common injuries are, anovaginal fistula [2, 3, 11], urethrorectal fistula [12] and at times the scrotum can also be involved [1,3,5,]

At times the thoracic region is also involved [1-3, 9-11]. The injuries are in the form of multiple rib fractures [1-3, 9-11] and penetrating injuries involving lungs[1,7]. Uncommon injuries include injuries involving the extremities[10], more commonly the lower extremities. Rarer forms of injuries include eye injuries [13]

Most of the injuries are located on the right side, although in our case the injury was seen on the left side chest. This is probably because most people are right handed and so the animal stands on the right side of the individual, which brings the horn to the right side of the body. Apart from this the individual generally turns the right side of the body in self protection [1, 5].

In countries like Spain apart from injuries by bull fighting, people also get hurt running through the streets with the bulls, which involves injuries to children also [14,15]. Bull gore injuries are seen in some parts of India during harvest season [1,5,7].

The number of stray cattle and commonly the bull is quite rampant in India. There has been injuries reported from these stray cattle's also [1,2]. They wander in the city, block traffic and defecate on roads and most importantly attack people and at times gore people to death.

CONCLUSION

Trauma due to animals especially due to Bull Horn could be dangerous to life as well as leave disability due to the site involvement. Early trauma surgery and intervention can be both life saving and could also prevent disability at a later stage.

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