such as joint stiffness, muscle atrophy, osteopenia, limb shortening, malunion and muscle contracture. Open reduction internal fixation is needed. Generally an intramedullary pin should occupy 70-80 percent of the diameter of the medullary cavity (Peirone et al., 2002). Pin was selected based on the diameter and length of the contralateral normal femur. Intramedullary pin provided excellent resistance to bending but not resisting rotational forces or axial loading. Additional implant (cerclage wire) was used to prevent rotational force and axial loading.

Summary

Successful management of oblique over-riding femoral diaphyseal fracture using intramedullary pin and cerclage wire in a cat was reported and recorded.

References


Traumatic Teat Laceration with Fistulation in a Cow and its Surgical Management

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Abstract

A four-and-a-half year old jersey crossbred cow was brought with the history of teat injury at right forequarter with milk leaking from the site. Clinical examination confirmed fistulation.

A three layer closure was performed using no. 3-0 PGA. The animal recovered unevenfully.

Key words: Cow, laceration, Teat fistulation

Surgical conditions of udder and teats are getting much attention now a day as these affects the economy of the farmer. The cases
of teat laceration with fistula are considered as emergency because of any delay in repair of such teat can lead to mastitis or even necrosis of the teat (Singh et al., 2003). Teat fistula may be acquired secondary to full thickness teat injuries that enter the teat cistern or may be even congenital (Thomas et al., 1995). The present case discusses the successful surgical management of traumatic teat fistulation in a cow.

Case History and Observations
A four-and-a-half year old jersey crossbred cow was brought with the history of teat injury at right forequarter with milk leaking from the injured site. The animal had calved twenty days back. Physical examination of the teat showed 80 per cent vertical cut (Fig.1) and the lacerated wound (6 x 3 cm) extended into the teat, resulting in leakage of milk from the middle of the teat. The teat was soiled and swollen with the evidence of necrotic tissue at the tip of the teat.

Treatment and Discussion
The animal was restrained in lateral recumbency and the teat was flushed with normal saline followed by one per cent povidone iodine solution. Ring block anaesthesia was induced by using 2% lignocaine hydrochloride followed by 10 % spray at the site. The wound margins were debrided and rinsed with physiological normal saline solution. No.7 size infant feeding tube was modified and introduced into the teat canal and fistulation was located at the middle of the teat. A 3-layer closure was performed. Mucosa and the submucosa were apposed using no. 3-0 Poly glycolic acid (PGA) in a simple continuous pattern. PGA does not to cut tissues and the small diameter suture decreases the chances of milk leaking around it. The infant feeding tube was inside the teat canal and sutures were tightened and knotted. Intermediate layer was also apposed by using 3-0 PGA in the same pattern. The skin edges were apposed in a simple interrupted pattern by using 1-0 nylon and the tube bended upwards and bandaged (Fig. 2). This procedure minimized suture line tension and narrowing of the teat canal. Two tubes of pendistin-SH were infused into the teat. The owner was advised to drain out milk by opening the cap of the infant feeding tube every two hours interval with aseptic precaution, followed by intramammary infusion of pendistin-SH for eight days. Five grams of injection streptopenicillin was administered intramuscularly for seven days and meloxicam was administered intravenously @ 0.5 mg/kg BW for two days. Skin sutures were removed on 9th post-operative day.

The udder and teats are vulnerable to the external trauma or injury because of their anatomical location, increase in size of the udder and teats during lactation (Weaver et al., 2005). A fistula on the teat is exceedingly difficult to close during lactation, owing to the large amount of milk constantly passing through it. Infective organisms gain entry through this wound, leading to mastitis (Kumar, 2000). Surgical intervention on the teat is best performed
during the first 12 hours following the injury. Later, swelling of the teat can be too severe to permit adequate reconstruction of the tissue. In the present case, it was an acute teat laceration with fistulation and the surgery was attempted immediately after presentation (before 12 hours). Different suture techniques are used to repair the teat fistula but double layer simple continuous suturing with PGA 3-0 and simple interrupted suturing of skin with nylon 1-0 is found suitable for repair of teat fistula (Shiju Simon et al., 2010).

Summary

Surgical management of traumatic teat laceration with fistulation in a cow is reported.

References


