

Case study

**Surgico-therapeutic management of thoroughpin in two Camels
(*Camelus dromedarius*)**

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Abstract

Tenosynovitis of the tarsal sheath is called thoroughpin of tarsal sheath. It is common in horses but in present report it is found in two camels. One camel respond to injection of corticosteroid into the cavity of the tarsal sheath but other did not, therefore surgical approach was determined. There was a remarkable improvement in the swelling as well as degree of lameness after surgery.

Keywords: Camel, Thoroughpin

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Case History and Diagnosis

Two male camels were brought to the clinics of college of veterinary and animal science, Bikaner, which is situated at arid zone region of India, with the history of lameness of hind limb. On clinical examination thoroughpin was diagnosed in both camels out of which one was unilateral and the other was bilateral. It was a painless with touch and movable on palpation (Fig. 1). The affected camel had a distinct bulge out swelling (tennis ball sized) on both medial and lateral

aspects of the Achilles tendon with a little larger toward the medial aspect (Fig. 1). In both cases, the swelling gradually increased in size over a period of four months. Animals showed shortened posterior stride during locomotion and their draft ability was also reduced.

Treatment

Out of two cases, the unilateral thoroughpin in one camel was treated by aseptic aspiration of synovia like fluid from tarsal sheath and injection of dexamethasone 20



Figure 1. A bilateral thoroughpin showing swelling bigger than tennis ball size at the side of tendoachillis proximal to the point of hock.

mg and gentamycin 200 mg were injected into the cavity of tarsal sheath, repeated for three alternate days. The procedure was performed after securing the camel in sitting position and was repeated twice at an interval of four days. The swelling even though subsided but did not completely disappeared and lameness was not manifested in this animal.

In the other camel with bilateral swelling of bigger size, the procedure described above was performed three times but there were no improvement in both limbs. It was therefore decided to operate on these cases.

The animal was secured in sternal recumbency and xylazine was administered intravenously at a rate

of 0.3 mg/kg body weight. Epidural anaesthesia was achieved by administering 2% lignocaine hydrochloride (Xylocain 2%-Astrazeneca Pharma India Limited) 60 ml epidurally at the level of sacrococcygeal space. Animal was then taken into lateral recumbency. The thoroughpin on the left hind limbs was operated first and the site was prepared for aseptic surgery. A longitudinal incision was made over the skin extending from cranial to caudal end of the swelling (Fig. 2). The incision was continued to subcutaneous tissue and the thickened wall of the tendon sheath. This led to the escape of synovia like fluid (Fig. 2) together with serosanguinous masses and necrosed piece of lining of tarsal sheath (Fig. 3) were removed. A sterile gauge



Figure 2. Treatment of thoroughpin by surgical drainage after securing animal in lateral recumbency. The cranial to caudal skin incision was continued through tarsal sheath. Note the drainage of synovia like fluid.



Figure 3. Surgical removal of thickened portion of tarsal sheath in a case of thoroughpin.

was rubbed inside the tarsal sheath cavity to remove the dead and necrosed tissues. The thickened portion of the wall of the tarsal sheath was excised and the incision of the tarsal sheath was closed by simple continuous suture using vicryl

no. 1 (Fig. 4). The skin wound was closed by simple interrupted sutures using black silk no. 2 (Fig. 5). Postoperatively, the operated area was kept protected using a sterile dressing and a cotton cloth sleeve. Injection of streptopenicillin 7.5 gm

intramuscularly once a day for 7 days and injection of meloxicam 150 mg intramuscularly once a day for 3 days were administered. Dressing was changed every 4th day and sutures were removed on the 15th postoperative day. The thoroughpin of the right hind limb was operated on the next day of the sutures

removal of the left hind limb. The procedure was identical with that described for left hind limb.

There was a remarkable improvement in the swelling as well as degree of lameness; animal was not showing any sign of lameness after recovery. The animal was discharged after one month.



Figure 4. Suturing of tarsal sheath after excision of thickened wall of tarsal sheath.



Figure 5. Apposition of skin edges by simple interrupted sutures using silk in a case of thoroughpin.

Discussion

Tenosynovitis of tarsal sheath is called thoroughpin of tarsal sheath (McIlwraith, 2002). The synovial fluid varies from clear pale yellow, to amber clear, to amber opaque. The average protein concentration is 2-2.5 mg/dl and leukocyte count is generally less than 600 (Vanpelt, 1969^a). Krishnamurti (2008) classified tenosynovitis into closed and open type and opined that lameness in these cases developed due to pain caused by distension of the synovial sheath. Thoroughpin was defined as distension of tarsal sheath cranial to the tendoachillis and almost at the level of tuber calcis.

Thoroughpin was identified in two camels of the present study. The exact etiology could not be established. It was not associated with inflammation or pain. Gahlot (2000) conducted an extensive study at arid zone of India on lameness in 256 camels and found thoroughpin in 3.5% cases.

Treatment of thoroughpin is by synovial fluid aspiration and injection of corticosteroids (Vanpelt, 1969^b) but sometimes it is reoccurred (McIlwraith, 2002). However, in one case of the present study, treatment was successful by administering corticosteroids but other case was operated on. This case had necrotic materials and thickening of the tarsal

sheath, hence, debridement was carried out. However, septic tenosynovitis has been reported in horses and drainage is being done and a tubular ingress tube was instilled together with Penrose drain for effective drainage (McIlwraith, 2002).

Gahlot (2007^b) reported that in hind limb, the surgical affection of highest occurrence found were hock joint arthritis (32.14%), followed by punctured foot (17.85%), upward fixation of patella (10.71%), fracture of tarsal bone (5.71%), fracture of metatarsus, thoroughpin and fracture of phalanges (3.57%, each), spinal concussion, arthritis of fetlock (2.85%,each), hip joint dislocation, fracture of tibia and popliteal lymph node abscess (2.14%, each).

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