

CTVT INDUCED UNUSUAL SWELLING OF PENILE REGION OF A DOG AND ITS THERAPEUTIC MANAGEMENT

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A 9 year old mixed breed male dog weighing 16 kg body weight was presented with complain of difficulty in mixuration, heavily swollen penile region and dropping of raw blood from prepuccial opening after each urination. Under GA, the prepuce was incised ventrally and the cauliflower/ grape like tumorous growths were excised out, cauterized with silver nitrate and the incised prepuce was sutured. Histopathology confirmed as the case of lymphoma. Post operatively suspecting for further growth in future, after one month it was administered with vincristine sulphate 2 times at 15 days interval with dextrose 5% in slow i/v. The dog was followed up for one year without any further growth or any complicacy. The radical surgery followed with chemotherapy using vincristine was seen effective in the reported case.

Keywords: Transmissible venereal tumour, Swollen prepuce, Chemotherapy.

Canine transmissible venereal tumour (CTVT) is a contagious disease condition of dogs occurring throughout the world. It has been reported that TVT affects dogs of any breeds, age or sex with high incidence during the periods of maximal sexual activity; estrus in female (Kabuusu *et al.*, 2010). It is a horizontally transmitted venereal round cell tumor diagnosed in dogs and normally transmitted during coitus by viable tumor cells through injured mucosa and spread from susceptible dogs by abrasions or loss of integrity on the surface. Definitive diagnosis is based on cytological and histological findings. The most effective treatment for this is chemotherapy with vincristine sulfate administered weekly since it is sensitive to this (0.5 to 1 mg/m², IV) for 4 to 6 weeks (Nak 2005). In another study it was established that, the therapeutic effect of intra tumoral treatment with vincristine and Intratumoral Interleukin-2 (IL2) found effective (Den Otter, 2015). Das *et al.* (2014) reported that, the CVT are relieved by surgical excision of the mass from root extent. The cases which are not completely recovered, suggesting that surgical treatment coupled with vincristine chemotherapy was the most efficient protocol of TVT treatment in dogs (Fathi, 2018). The present case report of heavily swollen prepuce affected with CTVT was treated successfully by the

combined effect of radical surgery with use of vincristine sulphate.

Materials and Methods

A 9 year old uncastrated mixed breed male dog weighing 16 kg body weight was presented with complain of heavily swollen penile region with dropping of raw blood from the prepuccial opening. From history, it was known that, the swelling gradually increasing with bleeding after mixuration since 2 months. It was treated with anti-inflammatory, analgesic and haemostatic by local practitioners without any relief. On physical examination there was heavy swelling of the penile region from base of penile region to the apex (tip of prepuce). It was doughy feeling and blood tinged site with dropping of raw blood. The prepuccial opening was small in comparison to the swollen prepuccial diameter for which it was unable to protrude the penis. It get swollen while about to mixuration. Microbial swab was collected for isolation of organisms and routine examination of blood with haemato-biochemical test for albumin, globulin, total protein and blood sugar was done. Suspecting a case of venereal granuloma, it was advised to present for surgical management. Before surgical intervention the dog was administered with inj ceftriaxone sodium and tazobactam @ 25 mg /kg body weight (bwt) i.e. 562.5 mg as per culture and sensitivity

test of the microbial swab collected and meloxicam @ 0.5mg/kg bwt i.e. 2 ml i/m. The dog was anesthetized with injectable general anesthesia using atropine @ 0.04 mg /kg bwt, xylazine 2 mg/ kg bwt and ketamine 7 mg /kg bwt and was maintained with drip under i/v infusion of NSS. Under routine operative procedure, the site was prepared aseptically and painted with povidone iodine solution. On the ventral margin two inches away from the prepuccial opening a 3 cm long horizontal incision was made incising the prepuccial skin, underlying musculature and internal mucosal lining. Then by retracting the prepuccial sheath a curved hemostatic forceps was pushed inside and around the penis and tried to bring out through the incised opening. By holding the penis guided by inserted tube, the growths were dissected out. The sample was sent for histopathological study. The bleeders were

checked by ligating with chromic catgut no. 2/0. After excising and dissecting out the venereal growths, the parts were cauterized by silver nitrate stick and neutralizing with normal saline (NSS). The incised margin of prepuce was united and the mucosa and underlying tissues were sutured using no. 2/0 chromic catgut. Then the cutaneous part was repaired by braided silk no.1 in interrupted pattern. The sutured site was painted with povidone iodine. Post operatively the owner was advised to continue both antibiotic and analgesic as was given prior to operation twice daily for 5 days with wound dressing regularly. After 10 days of surgical intervention, the sutures were removed. After one month a dose of vincristine was given i/v in drips with NSS. The owner was advised not to allow for mating at least for two seasons. The dog was quite ok without any complicity up to the age of next one year.



Fig. 1 Heavily swollen penis before surgery Fig. 2 Heavily swollen penis after surgery

Results and Discussion

The affected dog was presented in very chronic form but acute condition of venereal granuloma with heavy swelling and difficulty in mixuration and bleeding. . In the reported case of CTVT, it was preferred to go for radical surgery alongwith chemotherapy as was recommended by Fathi, (2018) and Das, *et al* (2014). At the time of presentation bacterial swab was collected for finding of microbial culture and accordingly ceftriaxone and tazobactam showed sensitive was injected and advised to follow up the same. The CBC showed no significant deviation of haemato-biochemical parameters except Hb value which was 9 gm %, TLC at 12000 cumm. Histopathological study showed a case of lymphoma, so surgical excision with

chemical cauterization may not be 100% effective to rule out the base of growths on naked eye examination, hence post surgical chemotherapy i.e. vincristine was administered at 0.5 mg not at 7 days interval as also reported by Den Otter, 2015 and Nak, 2005; it was continued further at 15 days interval owing to preventing to further growth in future.

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