signs described by Sayed et al. (1995), Brown et al. (1998) and Radostits et al. (2007). The occurrence of inflammatory reaction in the eyes might have resulted in enlargement of the corneal ulcers with deeper stromal involvement, corneal edema, and corneal neovascularization. The lesions were localized in the eyes and there was no systemic infection. Moreover, the susceptibility of the calves was increased because of high stocking density and the presence of flies which might have acted as the main transmitter of infection.

Cultural, morphological and biochemical characterization revealed presence of *Staphylococcus aureus* as the etiological agent in all the 15 cases. The antibiotic sensitivity test revealed that the isolated organism was highly sensitive to oxytetracyclin, followed by gentamicin, enrofloxacin, ceftriaxone, cephalaxin, cefotaxime, ceftriaxone, ampicillin, ampicillin plus sulbactum and streptomycin. Rhamatunabbi et al. (2005) also reported highest sensitivity of oxytetracycline in *Staphylococcal* eye infection in bovines.

Following therapeutic management with oxytetracyclin LA @ 20 mg/ kg i/m along with sub-conjunctival injection of gentamicin and dexamethasone (0.5+0.5ml each) for two days followed by eye drops of gentamicin and dexamethasone for 10-15 days, animals recovered completely.

**Summary**

The paper highlights the involvement of *Staphylococcus aureus* as etiological agent in the outbreak of infectious keratoconjunctivitis in calves, its clinical findings, sensitivity pattern and therapeutic management.

**References**


Buffalo, gross and histopathology

Cutaneous follicular lymphomas are uncommon to rare neoplasm of T lymphocytes (Scott, 2007). Most cases of cutaneous lymphoma are sporadic and a few cases (enzootic lymphoma) are caused by a retrovirus (bovine leukemia virus). Its occurrence in ruminants is rare, hence reported.

Materials and Methods

An eight year old Murrah buffalo bull was presented for treatment to Teaching Veterinary Service Complex (TVCC), COVAS, Parbhani with multiple cutaneous growths over the body. Clinical parameters like rectal temperature, pulse rate, heart rate and respiration rate were found to be normal. The animal was apparently healthy and had normal feed and water intake. After thorough gross examination biopsy was done and tissue growth was collected in 10% neutral buffered formalin for histopathological examination.

Results and Discussion

The history taken from the owner revealed that, cutaneous growth started from four to five months back and the growth was slow but consistent. The multiple nodular masses were firm and varied in size and shape and seen on skin all over the body including head, neck, trunk, back, thighs and tail (Fig. 1). The size of the masses was varying from bean to lemon size. There was great variation in shape varying from ill defined small nodular to well defined nodular, irregular round, elliptical or flat. Similarly, multiple lesions involving large area of body have been reported in 6 month to 4 year old cattle (Scott, loc cit). Author also opined that, the lesion might enlarge to 0.2 to 10 cm in diameter.

Histopathological examination revealed dense infiltration of lymphocytes in reticular dermis of the skin. Infiltrated lymphocytes were arranged in follicles separated by collagen and fibrous connective tissue (Fig. 2). Mitotic figures were rare. Epidermis was intact. Dermal appendages were noted only occasionally. It was also noted that sebaceous glands were compressed by growing follicles and also there was destruction of these glands. High magnification revealed mixed population of small and large lymphocytes. Nucleus of the lymphocytes was large and hyperchromatic. There was no much pleomorphism. However at some places large lymphocytes with cleaved nucleus were also noted. Taking into account of the history, gross and microscopic picture, it was concluded that the buffalo had cutaneous follicular lymphoma. Crystal (2007) reported cutaneous lymphoma in Holstein heifer. Jones et al (1997) and Schweizer et al (2003) reported that the epitheliotropic lymphosarcomas demonstrate an affinity for Langerhans’ cells and follicular epithelium of hairs, with progressive accumula-
tion of neoplastic lymphocytes developing within these sites with tendency to cause more severe destruction of adnexal structures. The above findings are similar to the findings in present case where most of the adnexal structures were destroyed. It’s differentiation as primary or secondary lymphosarcomas could not be done. In cattle, the clinical presentation of epitheliotropic cutaneous lymphosarcoma has been poorly described.

References

Haemangiosarcoma of Prepuzial Mucosa in a Dog

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Abstract
Prepuzial hemangiosarcoma was diagnosed in Non-descript dog on the basis of histopathology, FNAC and IHC. There was presence of firm lobulated, mass on the mucosal side of prepuzial skin. Microscopically, there was haphazard proliferation of endothelial cells with nuclear pleomorphism, forming variable sized clefts. Immunohistochemistry revealed strong immunoreactivity for CD34 marker.

Key words: CD34, Endothelium, Haemangiosarcoma, Immunohistochemistry, Prepuce.

Haemangiosarcoma has been reported to occur in all animals with higher incidence in dogs and usually occurs in adult and aged animals (Ward et al., 1994). They can develop in any organ; however, skin and spleen are common sites, or can arise from existing haemangioma. They commonly reoccur after surgical excision (Fry and McGavin, 2006).

Materials and Methods
An adult Non-descript dog with the history of having growth on the prepuzial mucosa was presented to the Government Veterinary Dispensary, Kem, Solapur. On physical examination, the growth appeared gray, multi-nodular, and firm with rough surface, measuring about 3-4 cms. There was no enlargement of local lymph nodes. Fine needle aspiration cytology (FNAC) revealed large amount of red blood cells, few neutrophils, and many spindle shaped, polygonal cells with indistinct cytoplasmic borders. The nuclei were round to oval and showed two to four nucleoli, variation in size and shape.

Results and Discussion
The tumor mass was then removed surgically. Cut section of growth appeared brown black in color (Fig. 1). Representative tissue samples were preserved in 10 per cent formalin for histopathological and immunohistochemical (IHC) examination.

Microscopic examination revealed haphazard proliferation of neoplastic endothelial cells that formed poorly defined vascular spaces (Fig. 2). The nuclei were round to oval and showed moderate to marked nuclear...