significant neutrophilia and decrease in mean haemoglobin, PCV and RBC values. There is no significant difference in the mean values of AST, total protein and albumin. Endoscopy of the nasal cavity revealed tumours single or lobulated (Fig. 1). These tumours partially/completely blocked the nasal cavity. Biopsy of the tumours revealed large multi-nucleated tumour cells (Fig. 2). Posterior rhinoscopy was highly useful for the evaluation of the extent of obstruction of the nasal cavity.

**Summary**
Rhinoscopic evaluation of nasal tumour in cattle is placed on record.

**Acknowledgement**
The authors are thankful for the Dean, Veterinary College and Research Institute, Namakkal for providing facilities during the study.

**References**

**Clinical Management of Polioencephalomalacia in Goats – A Retrospective Study of 18 Cases**

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**Abstract**
Goats presented with neurological signs to the Medicine unit of Teaching Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal were screened out of which eighteen goats that were diagnosed as affected with polioencephalomalacia formed the study group. The clinical signs include staggering gait, incoordination, torticollis, nystagmus and apparent blindness. All the animals were normal in appetite. Blood and rumen fluid were collected and were analyzed. These cases were treated with thiamine (@ 10mg/kg intravenous), Dextrose normal saline (10ml/kg intravenous) and dexamethasone (0.5mg/kg IV) till recovery. The results and clinical signs were recorded.

**Key words:** PEM, Goat, thiamine, Poliocenpha-
Polioencephalomalacia (PEM), softening of grey matter, is an important neurological disease process that could affect many species of ruminants and contributes to substantial economic loss to livestock industry [De Sant'Ana et al., 2010]. This disease is characterized by necrosis of the cerebral cortex also called as cerebrocortical necrosis [Roberts and Boyd, 1974]. Animals of all ages could be affected but young animals appeared to be more vulnerable. Several risk factors such as thiamine deficiency, sulfur toxicity, lead toxicity, and water deprivation-sodium ion toxicity had been implicated in the development of polioencephalomalacia. All these factors produced similar brain lesions. Regardless of the suspected cause of polioencephalomalacia affected animals frequently respond to thiamine administration [Rammell and Hill, 1986]. This article describes about the retrospective study of polioencephalomalacia in eighteen goats.

Materials and Methods

Goats presented with neurological signs to the Medicine unit of Teaching Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal were screened. Eighteen goats that were diagnosed as affected with polioencephalomalacia formed the study group. Blood and rumen fluid were collected and were analysed as per standard methods. These cases were treated with thiamine (@ 10mg/kg intravenous) and dextrose normal saline (10ml/kg intravenous) everyday along with dexamethasone (0.5mg/kg IV) was given on alternate days till recovery.

Results and Discussion

Predominant clinical signs observed in all the goats were in normal appetite (100%), incoordination (100%), separation from the flock at early stage (100%) and staggering gait (100%). Other clinical signs noticed in PEM were nystagmus (94.44%), ataxia (88%), apparent blindness (61.11%), torticollis (66.6%), lateral recumbency (50%), convulsions and paddling of limbs (50%). When these animals were turned and positioned flat on other side of lateral recumbency, they attempted and rolled back to the same position. The feeding habit and appetite were normal and they passed dung and urine normally. There was no change in the haematology of all the animals. The rumen fluid analysis revealed slight reduction in the pH (5.5 to 6) and the protozoa activity was sluggish with predominant number of small protozoa and reduced iodophilic activity.

Following treatment with thiamine, the severity of the clinical signs reduced. Twelve cases which were presented at early stage recovered fully in 3 days and four cases presented in the late stage took 7 to 9 days for recovery and two cases did not recover and the owner had disposed the animal. The response to treatment depended on the condition and extent of brain lesions. In the early stages of thiamine deficiency, animals would respond promptly to treatment. In delayed diagnosis and treatment, full clinical recovery might not be possible. The administration of Dexamethasone (0.5 to 1mg/kg IM or SC) was recommended to decrease edema and inflammation of the brain. Fluid therapy with dextrose solution intravenously, was also recommended. Thiamine deficiency usually implied the depletion of carbohydrates in brain cells that manifested as a neurological disorder. Thiamine (Vitamin B1) was produced by the bacteria and protozoa of the rumen under normal environmental conditions. Any change in the ruminal environment would affect the production of thiamine, increase the degradation of thiamine, or prevent thiamine from functioning properly in sheep and goats. In highly grain-fed animals, thiamine molecules produced in the rumen could be inactivated or degraded by the thiaminases produced by Bacillus sp., Clostridium sporogenes. Lower levels of thiamine would promote a lower supply of carbohydrates to the nerve cells, leading to central nervous disorders polioencephalomalacia and death, (De Sant’Ana et al., loc. cit.). Measurement of erythrocyte transketolase activity in the blood was the golden standard method to diagnose thiamine deficiency in ruminants and this test was not carried in these clinical cases due to lack of facilities. The depletion of carbohydrates causes alterations of the mechanism of action of the nervous system. The clinical signs obtained in the present study are in concurrence with reports of Radostits et al. (loc. cit.). All the
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The goats under the present study were found to be fed with ration rice and it could be the potential reason for excessive carbohydrate in the rumen with resultant thiamine deficiency. Hence the rumen fluid was slightly acidic in nature and large number of small protozoa and reduced iodophilic activity suggests of carbohydrate engorgement in sub acute level which could reduce the synthesis of thiamine. Reduced rumen pH, iodophilic activity and predominance of small sized protozoa explained the existence of sub acute ruminal acidosis in these animals with resultant thiamine deficiency.

Summary
A retrospective study of eighteen clinical cases of polioencephalomalacia in goats. The clinical signs and treatment were discussed and placed on record.

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The authors are thankful to the Dean, Veterinary College and Research Institute, Namakkal for the facility provided during the study.

References


Preparation and Evaluation of Chitosan and Chitosan-Povidone Iodine Composite Films on Wound Healing in Rabbits*

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Abstract
Wounds, infections of traumatic and surgical origin remain a major problem even with advances in antibiotics and antiseptics. Increase in multi drug resistance to pathogenic bacteria has led to need for developing newer products for wounds treatment. Chitosan is known biomaterial for its high potency in wound healing and povidone iodine is known for its antibacterial property without any resistance till date. In the present study chitosan and chitosan povidone iodine composite films were evaluated based on their potency in cutaneous wound healing in rabbits. Results showed that healing was earlier in chitosan film applied wounds than chitosan-povidone iodine composite film applied wounds.

Key words: Chitosan, Chitosan-povidone iodine, Wound healing, Rabbits

Wound healing is a combination of unique and multi-functional activities of different cell tissues, where different combinations were tried for their efficacy. Biomaterials like chitosan-polyvinyl pyrrolidone hydrogel (Risbud et al. 2000), keratin-chitosan-gelatin composite