Comparative Study on Vitamin B<sub>1</sub>, Vitamin A and Phenoxymethyl Penicillin in the Treatment of Warts in Eyes of Calves after Operation. A Case Study Report

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Abstract: The aims of this study were the investigation of role of vitamin A and B1 in the healing of cutting tissue. Vitamin A and B1 were used in the surgical treatment of warts in calves with antibiotics. Vitamin A acts on the epithelial tissue and early regenerate the tissue with vitamin B1 which stimulate the nervous tissue.

Key words:

INTRODUCTION

Warts are hanging from the canthus of the eyes of the calves and the nodules of warts are irritated to the adjacent part of the eyeball some times atrophy, dry and animals become blinds. The warts act as a foreign body in the eyes. If we remove the warts surgically then the animal save from blindness. We can use vitamin A and vitamin B1 with antibiotics (phenoxy-methyl-penicillin) in the field of treatment and has role in the tissue regeneration.

MATERIALS AND METHODS

Ten calves were selected for this case study in the villages at December 2001 to March 2002. The calves were divided into two groups. Five in each group and named as group-A and group-B. The study was conducted in my own interest at the field level.

Treatment was given in group-A with Ovit-Acap. (50000i.u/kg bwt), Tablet A-B<sub>1</sub> (B-1) at a dose rate 6mg/kg bwt and Phenoxy methyl penicillin at 5mg/kg body weight, continued up to 4 consecutive days orally. Treatment was also given in the group-B with tablet A-B<sub>1</sub> and Phenoxy methyl penicillin orally and continued upto 7 days for each calves. The selected calves were about 4-9 months of aged.

The calves were restrained during surgery and were cared in routine Manner under local anesthesia by Xylocain sodium at @ 5mg/kg body weight and locally retro bulbar with Lignocaine (HCL) was done to ten calves<sup>3</sup>.

The warts were removed surgically in both group of calves, sutured was done with chromic catgut as a Suturing Material and Mercurochrome 1% solution was used at cutting edges of the eyes.

RESULTS AND DISCUSSION

The calves of group A were all recovered completely within 4 days but in case of group B. after 7 days all the calves were not recovered completely and also continued the treatment up to 9th days then recovered but development of fibrous tissue at the cutting edges. Here fibrous tissue was not developed in group A due to the action of vitamin A (Dekaratinization action) on the epithelial tissue regeneration and rapidly healing where Vitamin B<sub>1</sub> act on nervous system and rapidly healing up.

Mason, B. et al. <sup>3</sup> Stated that a slight increase in the keratinization of normal cells with vitamin A.

Vitamin A is necessary for normal differentiation of epithelial tissue. It is associated with increased susceptibility to infections diseases in both man and animals models. Vitamin A also has a role as an anti-inflammatory agent. Reifen, R. <sup>2</sup> suggested that vitamin A deficiency induces inflammation and aggravates existing inflammatory states. The two main mechanisms which appear to be involved in the prevention of disease are the effects of vitamin A on the immune system and the effect on epithelial integrity.

Vitamin A depletion was induced to define early and late changes during the histogenesis of squamous metaplasia of hamster tracheal epithelium. An early change is the “minimal morphological change” (MMC) in which the mucociliary epithelium is separated from the basement membrane by a continuous layer of basal cells<sup>4</sup>. The result also show ed significant increased in longevity of retinal deficient mice when overectomized<sup>2</sup>.

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On the other hand in group-B Vitamin B, act on Nervous system but vitamin A on epithelial tissue. Phenoxy-methylene penicillin act on prevention of secondary bacterial infection in both groups.

**Conclusion:** In conclusion, vitamin A act on epithelial cells and early regenerate the tissue with vitamin B, by stimulating the nervous tissue. So here recommend that we can use vitamin A and B, in operation for early healing up the tissue.

**REFERENCES**