



**THERAPEUTIC EFFICACY EVALUATION OF VITADHAN AS A COTHERAPY IN
CLINICAL CASES OF HYPOGALACTIA, ANOREXIA, CACHEXIA AND SKIN
AFFECTIONS: A FIELD STUDY**

Rajiv Walia¹, K. Ravikanth², Adarsh² and Ankush Reothia^{*}

¹Senior Veterinary Officer, Govt. Veterinary Hospital, Baddi, Himachal Pradesh.

²Research & Development Division, Ayurved Limited, Baddi, India.

***Author for Correspondence: Dr. Ankush Reothia**

Research Associate, Research & Development Division, Ayurved Limited, Baddi, India. Mail ID: clinical01@ayurved.in.

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ABSTRACT

Therapeutic efficacy of Vitadhan, a liquid vitamin supplement (M/s Dabur Ayurved Ltd. India) against various disorders in cattle and buffalo was evaluated. 26 cases of cattle and buffalo were diagnosed for various disorders on the basis of history and clinical symptoms. Out of 26 cases, 6 cases were diagnosed for hypogalactia, 10 for skin infections, 4 for cachexia and 6 for anorexia. All the cases were treated with Vitadhan, at the rate of 10 ml once in a day for 10 days as a supportive therapy along with conventional therapy. Clinical signs were recorded so as to assess the time required for complete recovery. On the basis of observations, it was concluded that Vitadhan is a efficacious as a supportive therapy in treatment of hypogalactia, anorexia, skin affections and cachexia in cattle and buffalo. Vitadhan supplementation improved the feed intake and body score of the animals and led to early and faster recovery.

KEYWORDS: Hypogalactia, cattle, anorexia, cachexia.

INTRODUCTION

Nutrition is an important part of disease management, even though few disorders can be cured solely with diet. The interaction between illness, health, and nutritional status is multifactorial and complex. Vitamins are defined as a group of complex organic compounds present in nominal amounts in natural foodstuffs that are essential to normal metabolism and lack of which in the diet causes deficiency diseases.^[1] M Either the vitamin must be in the diet (dietary essential) or be synthesized by microorganisms in the digestive system and absorbed by the host animal. Deficiency of vitamin B₁₂ in diet can cause poor appetite and growth, muscular weakness, demyelination of peripheral nerves, and poor general condition.^[2] As cobalt is required for biosynthesis of vitamin B₁₂, lack of cobalt may cause deficiency of the vitamin B₁₂ in adult ruminants. Clinical signs of vitamin B₁₂ deficiency include weight loss, suppressed appetite, decreased feed efficiency, anemia, diarrhoea and rough coats. Scabies causes significant increase in lipid peroxidation.^[3] Administration of vitamin E and selenium in addition to standard therapy can alleviate lipid peroxidation and thus hasten the clinical recovery.^[3] Vitamin E and Se also increase milk yield in cows.^[4, 5] In rations with sufficient calcium, adequate vitamin D promotes positive body balance, but natural sources may provide insufficient vitamin D in many high-energy, low-roughage rations.^[6] Vitamin D₃ in cattle helps in

regulating calcium homeostasis associated with the intense calcium demands linked to the onset of lactation. The well-known endocrine functions of vitamin D₃ are to stimulate calcium uptake from the intestines, bones, and kidneys.^[7] The present study was undertaken to study the efficacy of Vitadhan, a liquid vitamin supplement (M/S Ayurved Limited, India) as a supportive therapy in treatment of hypogalactia, skin affections, cachexia and anorexia.

MATERIALS AND METHODS

The present study was undertaken at Govt. Veterinary Hospital, Una, Himachal Pradesh, India. A total of 26 cases of both cattle and buffalo of the age 2 to 5 years suffering from various disorders were treated with vitamin supplement (Vidadhan) at the rate of 10 ml once in a day for 10 days as a supportive therapy. The diagnosis was made on the basis of history of disease and clinical symptoms. Out of 26 cases, 6 cases were diagnosed for hypogalactia, 10 for skin infections, 4 for cachexia and 6 for anorexia. The animals suffering from hypogalactia and anorexia were treated with combination of liver tonic, tonophosphan & Vitadhan. The less severe cases of cachexia were treated with anthelmintics formulation and as a cotherapy Vitadhan was supplemented and severe cases were treated with combination of liver tonic, mineral supplement, anthelmintic & Vitadhan as supportive therapy. The

results were evaluated on the basis of number of days for which co-therapy with Vitadhan was given, number of days for which treatment was given and number of days required for complete recovery.

RESULTS AND DISCUSSION

Hypogalactia

Occurrence of various diseases in dairy animals adversely affects the production and thus leads to financial losses. Out of 6 cases presented with the history of decline in milk output 4 animals exhibited recovery by restoration in milk yield within 5-7 days of treatment. In most of the treated cases there was a remarkable recovery with increase in milk production upto 1.5 to 2 liters in a day. The increase in milk production may be due to the supplementation of Vitadhan along with liver tonic and tonophosphan. Vitamin A is important in maintaining epithelial tissue health and play a vital role in mucosal surface integrity and stability.^[8] Limited data show that vitamin A supplementation of dairy cows may improve mammary gland host defense (i.e., immune function) and may have some positive effects on mammary gland health. Dairy cows receiving vitamin/trace mineral supplements. have tendency for increase in milk production.^[9, 10, 11]

Scabies

Scabies is a chronic contagious dermatitis of domestic animals and is characterized by encrustation, denudation and itching of the skin. Infection in animals may lead to substantial economic losses caused by depression in growth and feed conversion rates.^[12] Out of 10 cases suffering from skin affections 8 recovered completely by 7th day and 2 severe cases exhibited delayed recovery by 15th day of treatment. Significantly low levels of vitamin A were found in dogs with sarcoptic.^[13] Low levels of vitamin A may be the result of the regulatory role of zinc on vitamin A absorption^[14, 15] and transport.^[16] Administration of vitamin E in addition to standard therapy can alleviate lipid peroxidation and thus hasten the clinical recovery from scabies.^[3]

Anorexia

In ruminants anorexia, tympany and indigestions are commonly encountered and are characterized by poor appetite, change in pH, decreased ruminal motility and reduced protozoal counts.^[17] Total 6 cases of anorexia were treated with combination of liver tonic, tonophosphan & vitamin supplement (Vidadhan). Normal appetite of animals was restored after 2nd day Vitadhan supplementation in anorectic cases. This indicates that Vitadhan supplementation can improve the feed intake probably due to presence of Vitamin E which has antioxidant property^[18] and vitamin B₁₂ which acts as cofactor for enzyme Methylmalonyl-CoA mutase^[19] which is vitally important to the energy metabolism of both the rumen microbes and the host ruminant animal.

Cachexia

Cachexia causes weight loss and increased mortality.^[20] The weight loss that occurs in cachexia is unlike that seen in a healthy animal that loses weight.^[21, 22] Low serum levels of Vitamin D₃ have been related to proximal muscle weakness, gait disturbance, paresthesia, and discomfort within the muscles.^[23] Total 4 cases of cachexia were presented in veterinary clinics. An overall improvement in body condition of the diseased animals was evident. The body scoring of animals after treatment was significantly better than before treatment. All the 4 treated animals recovered on basis of physical examination of animals. The improvement in body condition may be due to Vitamin D₃ has been reported to regulate functional effects such as contraction and remodeling in smooth muscle cells.^[24, 25, 26]

CONCLUSION

The supplementation of Vitadhan in animals suffering from anorexia cachexia hypogalactia and skin affection has led to improvement in condition. An early and faster recovery was attained with Vitadhan, supplemented as co-therapy.

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