Journal of Scientific Agriculture 2025, 9: 59-61
doi: 10.25081/jsa.2025.v9.9349
https://updatepublishing.com/journal/index.php/jsa

Research Article

ISSN: 2184-0261

Autohemotherapy: An effective treatment regimen for teat warts in cattle under Leh Ladakh conditions

Nazir Ahmad Mir[1]*, Shahid Ahmad Shergojry[2], Ishtiyak Ahmad Mir[3], Sarver Ahmad Rather[4]

[1]KVK, Bandipora, SKUAST-K, Srinagar-193502, Jammu and Kashmir, India, [2]KVK, Kulgam, SKUAST-K, Srinagar-192231, Jammu and Kashmir, India, [3]KVK, Anantnag, SKUAST-K, Srinagar-192211, Jammu and Kashmir, India, [4]NRL, Bhabha Atomic Research Centre, Srinagar-190006, Jammu and Kashmir, India

ABSTRACT

Leh-Ladakh is a cold arid region of Jammu and Kashmir UT of India with an average altitude of 3500 meters. The climatic conditions are very harsh in terms of low rainfall, low humidity and temperature variation from -40 °C to +35 °C. Ladakh remains cut off from the rest of the world by road for most of winter months. Animal clinical camps were organized by Krishi Vigyan Kendra Leh in the Thiksey and Rambirpur villages of Leh. Four (4) animal clinical camps were organized in these villages. Eleven (11) cases of cows with teat warts were presented in these camps. Due to local customs, many farmers do not prefer the use of allopathic medicines, besides the paucity of medicines in most of villages; autohemotherapy was performed on these animals. 15- 20 mL of blood was removed at a time from these animals and then 10 mL of this blood was injected deep intramuscularly in the gluteal region and 5-10 mL of blood was given subcutaneously in the lateral neck region. The practice was followed once a week for four weeks. Nine out of eleven cows responded well to the treatment. The teat warts began to regress from the third week and most of the warts either degenerated or fell off from the animal by six to eight weeks.

Received: December 10, 2024
Revised: February 25, 2025
Accepted: February 25, 2025
Published: May 09, 2025

***Corresponding Author:**
Nazir Ahmad Mir
E-mail: mir643@gmail.com

KEYWORDS: Teat wart, Cows, Autohemotherapy, Cold arid

INTRODUCTION

Warts or papillomas are the finger-like projections affecting almost all species of animals including human beings throughout world. Papillomatosis is a viral disease characterized with benign cutaneous growth on different parts of the body; however neck, eyelids, teats and lower abdomen are the most common sites of occurrence. Papilloma size varies from small wart-like formations (1-5 cm diameter) to orange-sized growths. Teat warts are commonly observed in dairy cattle and appear as flat and round, rice grain and frond epithelial types. Many teats only show 'rice grain' or small, smooth and flat, white warts anywhere on the teat. Teat warts are among the most common dermatological problems faced by dairy farmers; they rarely pose life threatening risk, however, their impact on productivity and animal welfare makes effective and timely treatment a necessity.

Bovine papillomatosis is a contagious disease of cattle as warts/papillomas on the skin and mucosa, caused by bovine papilloma viruses (BPV) (Tokura & Kagawa, 1995). Papillomatosis is a contagious disease usually transmitted through direct contact, through equipment, particularly during milking, contaminated food and flies.

Various methods are used to treat papilloma in cattle. Cauterization, injection of a local anesthetic to the root of the wart, use of antiparasitic drugs (ivermectin, levamisole), bleomycin sulfate injection into the papilloma, cryotherapy, corticosteroids and vaccination are among such treatments. In addition, different treatment methods such as feeding animals with papilloma with various plant species or rubbing milk obtained from fig leaves onto the warts are used (Apaydin *et al.*, 2010; Börkü *et al.*, 2007; Paksoy *et al.*, 2015). Warts in cattle were treated using homeopathic drugs including Thuja oral drops and Thuja ointment (Mathi *et al.*, 2016). Bai-Mast® can be used as an alternative for the treatment of papilloma in cattle (Manoj & Pant 2017). Tarantula cubensis extract applied in normal therapeutic doses was more effective in the treatment of teat papillomatosis than levamisole (Paksoy *et al.*, 2015). Autohemotherapy although unconventional, is gaining attention for its simple procedure,

immune modulating effects besides being acceptable to dairy farmers in particular regions.

MATERIAL AND METHODS

Animal clinical camps were organized under Krishi Vigyan Kendra Leh in the Thiksey and Rambirpur villages of Leh-Ladakh. A total of four (4) animal clinical camps were organized in these villages. A large number of animals including cattle, sheep and goats were brought to the camp. Besides different ailments and nutritional deficiencies, 11 cases of crossbred cows with teat warts were also presented in these camps. Among these 3 cows were local cows while 7 cows were crossbred Jersey. Farmers were reluctant to use allopathic veterinary medicines prescribed to them for treatment of teat warts; besides this, there was also the paucity of these medicines in the local market. So it was decided to have an autohemotherapy treatment regime for these cases. In order to motivate farmers for adoption of this treatment regimen; autohemotherapy, many awareness cum training programs were organized in these villages.

Treatment Procedure

Treatment consisted of removing blood from the jugular veins of affected animals and then injecting back same blood to the same animal through the intramuscular route at one or more sites (Figure 1). 15-20 mL of venous blood was drawn from the jugular vein from these animals by using 18G hypodermic needle in a disposable syringe and then 10 mL of this blood was injected deep intramuscularly in the gluteal region or at neck region and 5-10 mL of blood was given subcutaneously in the lateral neck region. The practice was followed once a week for four weeks.

RESULTS AND DISCUSSION

The teat warts responded well to the autohemotherapy treatment regime. Initial visible effects were recorded only after 3rd week of treatment. Initially the teat warts started to dry off and reduce in size (Figure 2). After 6-8 weeks the warts begin to regress and either degenerate or fall off from the animal (Figure 3). Nine out of eleven cows responded good to the treatment.

Autohemotheraphy works by activating the reticulo-endothelial system of the animal. In a case study by Nehru *et al.* (2017) it was concluded that without using any chemical agent, auto-hemotherapy can be effectively employed to treat bovine teat papillomatosis. Treatment of cutaneous papillomatosis in a non-descript cow by autohemotherapy was reported by Ganesh (2011). Autohemotherapy was also effective for the treatment of bovine papilloma (Chetan Kumar, 2011). Autohemotherapy is thought to be effective because of many mechanisms including immune activation, induction of interferon production, slowing down inflammatory process and nonspecific immunomodulation.

Figure 1: Removing blood from affected cow

Figure 2: Warts on teats before treatment

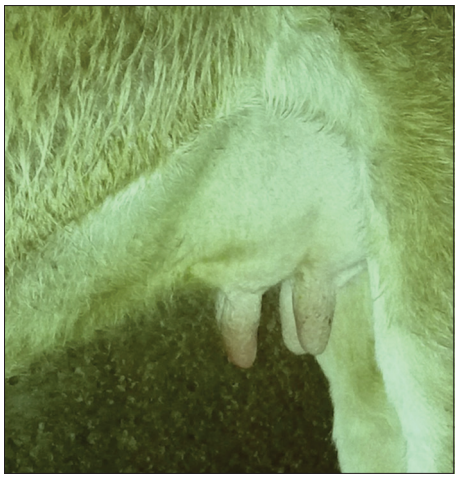

Figure 3: Teats after treatment

CONCLUSION

Autohemotherapy can be successfully used in treatment of warts in dairy cows under field conditions of Leh-ladakh as

cost effective treatment and this treatment regimen is highly effective in dairy cows of Leh-ladakh, which are nearly grown under organic livestock production system. With further research and standardization, autohemotherapy could become integral component for wart treatment under this livestock production system.

REFERENCES

Apaydin, A. M., Aydin, M., Ciftci, O., Timurkaan, N., Yildiz, H., & Tonbak, S. (2010). Effects of Paronychia kurdica on teat and udder papillomatosis in cows. *Revue de Médecine Vétérinaire, 161*(6), 267-271.

Börkü, M. K., Atalay, O., Kibar, M., Cam, Y., & Atasever, A. (2007). Ivermectin is an effective treatment for bovine cutaneous papillomatosis. *Research in Veterinary Science, 83*(3), 360-363. https://doi.org/10.1016/j.rvsc.2007.01.016

Chetan Kumar, G. K. (2011). Recent Developments in diagnostics and therapeutics including applications of nanotechnology in veterinary medicine. Proceedings of 29th ISVM Convention & National Symposium.

Ganesh, H. (2011). Cutaneous papillomatosis in a non-descript cow. *Veterinary Science Research Journal, 2*(1 & 2), 37-38.

Manoj, K., & Pant, S. S. (2017). Herbal Therapy: An Alternative against Bovine Teat Papillomatosis in Cattle. *International Journal of Current Microbiology and Applied Sciences, 6*(2), 1194-1196. https://doi.org/10.20546/ijcmas.2017.602.135

Mathi, P. M., Saranya, K., Umadevi, U., & Umakantha, T. (2016). An Effective Treatment Regimen for Warts in Cattle. *Journal of Veterinary Science and Animal Husbandry, 4*(2), 202. https://doi.org/10.15744/2348-9790.4.202

Nehru, P. A., Sunandhadevi, S., Rama, T., & Muniyappan, N. (2017). Efficacy of auto-hemotherapy in bovine teat papillomatosis: A case report. *Advances in Animal and Veterinary Sciences, 5*(8), 350-351.

Paksoy, Z., Gülesci, N., Kandemir, F. M., & Dinçel, G. Ç. (2015). Effectiveness of levamisole and tarantula cubensis extract in the treatment of teat Papillomatosis of cows. *Indian Journal of Animal Research, 49*(5), 704-708.

Tokura, K., & Kagawa, S. (1995). Anti cancer agent containing chebulanin from *Terminalia Chebula*. *Japanese Kokai Tokkyo Koho, 07*, 138-165.