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Letter to Editor

Autohaemotherapy as a non-conventional treatment for bovine papillomatosis

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Dear Editor,

Papillomatosis is a cutaneous condition caused by Bovine Papillomavirus (BPV-1 and BPV-2) that commonly affects bovines, leading to benign wart-like growths (Silvestre *et al*., 2009; Singh *et al*., 2010; Al-Redah *et al*., 2021). These warts can be numerous, difficult to remove surgically and prone to maggot infestation. At this institute, such warts are treated by a combination of three methods. This case study involves a 3-year-old pregnant buffalo (3 months pregnant) with multiple papillomatous lesions. The most prominent lesion was located on the limbus of the left eye, with smaller masses on the upper eyelid (Fig. 1a), rump, and tail for the last four months. The periocular lesion measured approximately 2.5 cm in diameter, had a firm consistency and a dry, keratinized surface. While the lesion was non-ulcerative, it caused mild conjunctival irritation. No signs of systemic illness or metastasis were observed.

The treatment protocol included a multimodal approach:

1) Autohemotherapy

Involving the subcutaneous injection of 10 ml of the buffalo's own raw blood. This technique aims to stimulate the immune system to recognize and combat papillomavirus-induced lesions.

2) Nylon thread ligation technique

Used to tie off the base of a pedunculated wart on the eyelid. This restricts blood supply, promoting necrosis and eventual detachment of the wart, while also stimulate the immune system.

3) Supportive therapy

It is including:

a) *Thuja occidentalis* tincture (a homeopathic medicine) applied topically on the warts and administered orally (10 drops on the tongue) twice daily for 15 days. It is reported to have antiviral and immunomodulatory properties, helping to clear the papillomavirus and stimulate the immune system to prevent recurrence. However, based on personal experience, it has been observed that this treatment alone is ineffective in bovines and dogs.

b) A liver supplement to support hepatic function.

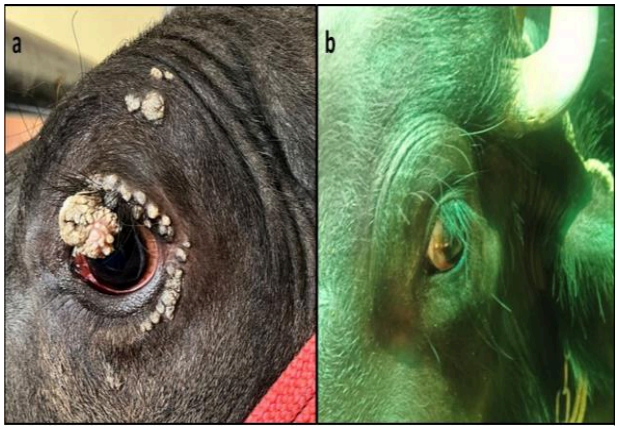

Fig. 1: (**a**) Photograph of a 3-year-old female buffalo presenting with warts on limbus and eyelids for 4 months, and (**b**) The follow up photograph after 3 months shows complete regression of warts with no re-occurrence after the multimodal treatment

A gradual reduction in the size and drying of the periocular wart was noted by day 12, consistent with the self-limiting nature of papillomatosis when immune stimulation is effective. Over the follow-up period, complete regression of the periocular wart (Fig. 1b) and other cutaneous lesions was observed, with no recurrence or complications. This case underscores the efficacy of

conservative therapeutic strategies in managing BPV-induced papilloma's, particularly in anatomically sensitive areas. It also highlights the importance of early intervention and immunostimulatory therapy in achieving favourable outcomes. Although papilloma's are generally considered benign tumours that often regress spontaneously as lesions mature, this is not always observed in clinical cases presented for treatment. Therefore, the above-mentioned multimodal approach is recommended.

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Conflict of interest

The authors declare that they do not have any conflict of interest.

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Use of generative AI and AI-assisted technologies statement

The title of the manuscript was modified with chatGPT support. No other generative AI or AI assisted technology were used for the manuscript writing.

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