



BRIDGING AYURVEDA WITH EVIDENCE BASED SCIENTIFIC APPROACHES IN VETERINARY MEDICINE AN INSIGHT – A REVIEW

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ABSTRACT

Introduction Veterinary herbal medicines encompass plant-based treatments and their applications for therapeutic, preventive, or diagnostic purposes in the field of animal healthcare. The use of herbal medicines has a long history in both human and animal healthcare, dating back thousands of years. To promote the quality of Ayurvedic drugs for veterinary use, the AYUSH Ministry and the Department of Animal Husbandry and Dairying (DAHD) have initiated collaborative research efforts. This initiative aims to identify potential medicinal plant species used in veterinary medicine, establish standards for them, provide training, and raise awareness about Good Agricultural Practices (GAPs). **Materials and Methods** This article presents a critical assessment of the current approaches to integrating Ayurveda with evidence-based allied systems of medicine. It examines the quality, methodologies, and extent of scientific research in Ayurvedic medicine. **Results** A Memorandum of Understanding (MoU) has been signed between the National Medicinal Plants Board (NMPB) under the Ministry of AYUSH and the Department of Animal Husbandry and Dairying (DAHD) to advance research in new formulations and the quality selection of drugs for veterinary science through medicinal herbs. This initiative encompasses capacity building, training, exploring marketing opportunities for herbal veterinary medicines, and services related to the cultivation, preservation, and conservation of medicinal plants. **Conclusion** The AYUSH Ministry will collaborate with the Department of Animal Husbandry to develop curricula and courses for AYUSH herbal veterinary education programs. Additionally, it will identify potential medicinal plant species used in veterinary medicine, establish standards, provide training, and create awareness programs regarding Good Agricultural Practices (GAPs), Good Field Collection Practices (GFCPs), and Good Manufacturing Practices (GMPs). This comprehensive approach aims to establish research and testing centers and ultimately uplift the veterinary herbal medicine sector.

KEYWORDS :**INTRODUCTION**

Herbal medicines have gained popularity in our communities due to their perceived minimal side effects or lack thereof. In Asia and Africa, approximately 80% of the population relies on traditional medicine for their primary healthcare needs. The herbal medicine industry is a highly profitable sector, generating billions of dollars in revenue. Researchers have shown interest in traditional medicines as potential sources of guidance, as around 40% of plants contain active components that can be used in prescription drugs.

Veterinary herbal medicines, consisting of plant-based treatments for animal health, are becoming increasingly important in future research. In rural India, traditional veterinary medicine reflects the knowledge, skills, practices, and beliefs of cattle owners in caring for their livestock. Many cannot afford expensive synthetic drugs, leading to a search for alternatives like herbal preparations, which are cost-effective and safe. Recently, the AYUSH Ministry and DAHD have joined forces to conduct research aimed at identifying quality Ayurvedic drugs for veterinary use. This includes determining potential medicinal plant species used in veterinary medicine and establishing standards, training programs, and awareness initiatives on Good Agricultural Practices (GAPs).

MATERIALS AND METHODS

This article explores contemporary approaches to integrating Ayurveda with evidence-based alternative medical systems. It offers a pragmatic assessment of the quality, methodologies, and extent of scientific research in Ayurvedic medicine.

RESULTS

Herbal medicines contain diverse active compounds, each with its unique properties. Prescribing herbal medicines for veterinary use should consider the risk-benefit ratio based on scientific evidence and the practitioner's experience. Herbal medicines for animals can be administered in various forms, including mixing with food, dried herbs added to food, alcoholic tinctures, oil infusions, and commercially prepared tablets or powders.

Standardization in veterinary herbal medicines is crucial to ensure quality, consistency, and reproducibility. This involves implementing quality control measures for batch-wise consistency, dosage uniformity, stability, and detecting contamination or adulteration. To facilitate this, an MoU was signed between the National Medicinal

Plants Board (NMPB) and the Department of Animal Husbandry and Dairying (DAHD) to advance research on new formulations of high-quality veterinary drugs derived from medicinal herbs. This initiative also encompasses training, exploring marketing opportunities for herbal veterinary medicines, and services related to the cultivation, preservation, and conservation of medicinal plants.

DISCUSSION

Despite the widespread implementation of modern healthcare programs in rural areas, traditional treatments remain popular. Many remote areas hold valuable, undocumented knowledge about animal diseases, herbal treatments, and formulations. However, this traditional veterinary knowledge is at risk of disappearing due to modernization and a lack of interest among young people. Therefore, prioritizing the veterinary herbal sector is essential. Although herbal veterinary medicines are cost-effective, the rising costs of medicinal plant active compounds threaten their affordability compared to allopathic drugs. Consequently, research in this sector, both nationally and internationally, is imperative. There is a continued need to validate traditional claims and assess the safety of these medicinal plants for use in veterinary medicine.

CONCLUSION

The Department of Animal Husbandry will collaborate with the Ministry of AYUSH to recognize the importance and feasibility of Ayurvedic medicines. They will raise awareness among dairy farmers and agro-farmers about the utilization and significance of herbal veterinary medicine, cultivation of medicinal herbs, curriculum development for Ayurveda and allied subjects in veterinary medicine, and support collaborative research efforts. The Ministry of AYUSH will assist the Department of Animal Husbandry in developing curricula and courses for AYUSH herbal veterinary education programs, identifying potential medicinal plant species used in veterinary medicine, establishing standards, providing training, and promoting Good Agricultural Practices, Good Field Collection Practices, and Good Manufacturing Practices for herbal veterinary medicines. Additionally, they will facilitate financial support for medicinal plant cultivation and nursery development and help standardize norms for medicinal plants while establishing research and testing centers as needed.

REFERENCES

- 1) Veterinary herbal medicines in India (PMCID: PMC4557239; PMID: 26392714)