

УДК : 615.322:619(540)

**ДЕВИРЕДДИ САИ МАЛЛИХАРДЖУНА РЕДДИ**, студент (Индия)

Научный руководитель **Крюкова В.В.**, канд. вет. наук, ассистент

ФГБОУ ВО «Санкт – Петербургский государственный университет ветеринарной медицины»

## **PHARMACOLOGICAL MEDICAL PLANTS ANT IT'S ROLE IN MODERN INDIAN VETERINARY MEDICINE**

Introduction. Herbal medicines are being used by an increasing number of people as these products are considered to have no side effects or minimum side effects. Veterinary herbal medicines comprise plant-based medicines and their therapeutic, prophylactic, or diagnostic application in animal health care. The application of herbal medicines in human health care and animal health care has a long history that can be traced back over millennia. In the rural areas of India, the veterinary medicines cover knowledge, skills, methods, practices, and beliefs of the smallholders about caring for their livestock. These smallholders are unable to spend on quality health of their livestock, mainly due to non-affordability, whereas high-end health care is mainly met by expensive yet effective synthetic drugs. The side effects of the synthetic drugs such as presence of antibiotic residues leads to antibiotic resistance in humans; the toxic metabolites remain in meat, and the by-products of synthetic drugs become a matter of concern in the long-term usage of such drugs. Issues like these have prompted the search for the use of alternatives such as herbal preparations, as these are cheap and safe as compared to modern animal health-care systems.

Aim of the study: to find out the role of medical plants in modern Indian veterinary medicine.

Material and methods. Indian Pharmacology is based on Indian Pharmacopoeia (IP) - an official regulatory document meant for overall quality control and assurance of pharmaceutical products marketed in India and thus, contributing to the safety, efficacy, and affordability of medicines. IP is published by the Indian Pharmacopoeia Commission on fulfilment of the requirements of the Drugs and Cosmetics Act 1940 and Rules 1945 under it. Analysis of it were made, contains a number of carefully chosen herbal monographs, extracts, and formulations, all the information about active substances. Therefore, there is a need to prioritize the veterinary herbal sector. The herbal veterinary medicines are mainly sold at a relatively low cost as compared to modern medicines. While the herbal products are cheaper, the active ingredients of the medicinal plants are becoming increasingly expensive. As a result, herbal

veterinary medicines are losing their edge over the allopathic drugs. Thus, there is also an urgent need to encourage research in this sector.

For example, not all medical plants are as effective to animals, as they are to humans, on the contrary, they can be animal toxic. The most vivid examples are - Garlic. It is used in herbal remedies in whole plant form or infused oil for its antiviral, bactericidal and fungicidal properties. Like onions, garlic ingestion can cause anemia in pets. Anemia is a decrease in the number of red blood cells or hemoglobin in blood. Since hemoglobin carries oxygen from the lungs to tissue, severe anemia can have negative effects on multiple organs and systems in the body. Symptoms of anemia often show up three to five days after an animal has ingested the vegetable oil. Exposure to garlic oil on the skin can cause a dog or cat to have allergic reactions of the skin or asthmatic attacks as well.

Chamomile. This herb is often used in tinctures or teas as a digestive aid, stress reducer, poultice for cuts or burns or for the treatment of abscesses. It can also be found in oil form. For animal's chamomile causes vomiting and lack of muscle coordination.

Oil of Wintergreen. Bengay and other natural pain relieving ointments use Oil of Wintergreen as a main ingredient. It comes in ointment or oil form and is applied to the skin to relieve muscle pain. The scientific name for this type of medicine is a Salicylate. Salicylates are toxic to cats and dogs. Signs of salicylate toxicity include nausea, vomiting, restlessness that progresses to seizures and coma.

Tea Tree Oil: Ridding your animals and house of fleas can be a tough job. One of the suggested methods is the use of Tea Tree oil as a topical application for your pet as well as a spray for bedding. Tea tree oil can be toxic to pets if applied in large quantities or groomed off the skin by the pet. According to the ASPCA "clinical effects that may occur following dermal (skin) exposure to significant amounts of tea tree oil include loss of coordination, muscle weakness, depression, and possibly even a severe drop in body temperature, collapse and liver damage."

Conclusion. It can thus be concluded that there is still a need for both the validation of traditional claims (detailed pharmacognostical, phytochemical, and pharmacological investigations, etc.) and safety evaluations in appropriate models of these medicinal plants for their development and use as veterinary medicines.

Moreover, the quality specifications of veterinary herbal medicines in India need to be developed and the possibility of collaboration efforts may be explored to take care of animal health care at the national and international levels.