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Research Article

ETHNOVETERINARY - A TRADITIONAL HEAL TO AILING CATTLE

Sushmita Shrivastava * and R.S. Tomar

Amity Institute of Biotechnology, Amity University, Madhya Pradesh, INDIA.

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ABSTRACT

Health is an important aspect of every one's life whether it is plant, animal or humans. Humans are quite aware of their health but animals especially cattle are dependent on their keepers for their wellbeing. Allopathic drugs available in the market were found to be mostly costly and generally not used by the villagers of our society, instead they preferred to use naturally available herbal medicines. Such traditional herbal medicines had been proved to be an efficient method of treatment for cattle. They were found to be safe and had enormous benefits. In the present study, information had been collected for few specific ailments of cattle and their ethnoveterinary treatment in Gwalior region of Madhya Pradesh.

KEYWORDS: *Traditional, Ethnoveterinary, Medicine, Cattle.*

INTRODUCTION

Planet earth consists of both plants and animals as pioneer components of the biological system. Both have unique place in this living world. Both the components are even interdependent for their survival. Plants are not only the food component for several herbivore animals but also acts as medicines for them. The traditional method of using plants and animals for the benefit of society is Ethnobiology. While the science of ethnoveterinary deals with people beliefs, knowledge and faith regarding use of plants for the treatment of animals. Ethnoveterinary is traditionally old knowledge of people's faith on plants and their products for the healing purpose of animals. It basically deals with use of locally available plants in the treatment of animals. People have generations old belief on these practices. Another reason for using such medicines is that these are harmless causing no side effects, cheap and easily available in the surroundings. Curative properties of plants can be traced back to the Vedic period (1000 - 500 B.C.). The Rigveda, Atharveda and Ayurveda are the pioneer documents giving information about curative properties of plants as veterinary medicines.

In due course of time due to increased mechanisation and modern trends of treatment in various systems of treatment, knowledge and uses of wonder herbs have been largely forgotten, but still our traditional knowledge has survived with aboriginals (adhivasis), farmers and folk men. Knowledge about ethnoveterinary medicine is rather unsystematic and less formalized. It is usually transferred through generations by word of mouth rather than in writing.

Ethnoveterinary in present era:

Ethnoveterinary information is in danger of extinction because of current rapid changes in communities all over the world. Most of the communities now-a-days use the mixture of traditional, local herbal methods and modern practices for the treatment of their cattle.

***Corresponding author:**

Sushmita Shrivastava

Amity Institute of Biotechnology,

Amity University, Madhya Pradesh, INDIA.

** E-Mail: rssush@gmail.com*

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There is, therefore, urgent need of promoting and conserving the use of traditional ethnoveterinary medicines because they are less harmful, cheaper, easily available and easy to administer.

Why Ethnoveterinary medicines are important:

Prolonged use of allopathic medicines may affect the physiological systems of cattle and even affects their products. Ethnoveterinary knowledge of India has great potential to address the current challenges faced by livestock. There is urgent need of revival of traditional veterinary practices on priority for the welfare of cattle and human society. The key issues of modern era are -

(i) Reduction in the cost of health care for milching animals.
(ii) Reduction in antibiotic and hormone residues in the milk and other animal products (by using safe, tested local traditional medicinal plants).
(iii) Contribution to the economy of producer.

Benefits of using EVM (Ethnoveterinary Medicines) for treatment include:

(a) No side- effects.
(b) Cheaper as compared to allopathic drugs.
(c) Easily and freely available in our surroundings.
(d) Easy to administer.
(e) Can be used in crude form.
(f) Livestock keepers are already familiar with herbal medicines and have centuries old belief.

MATERIALS AND METHODS

The study is based on the observations and information collected through survey in the selected areas of Gwalior region and interviewing people by set questionnaire regarding their diseases, causative agent, plants used in treatment, dose, dosage and recovery period.

RESULT AND DISCUSSION

Azadirachta indica, *Calotropis procera*, *Allium sativum*, *Allium cepa*, *Curcuma longa* and *Zingiber officinale* are the plants used in

treatment of constipation in cattle, which is generally caused by deficiency of water or abnormal forage. *Achyranthes aspera*, *Brassica campestris* oil, *Ferula asafoetida*, *Curcuma longa*, *Trachyspermum ammi* and turpentine oil used in treatment of bloat, which results due to change in diet or due to abnormal tone of abdominal muscles. *Cucurbita maxima*, *Acacia nilotica* thorns and Gram flour mixture is utilized for cure of volvulus.

Diarrhoea is a common disorder caused by foully eating or contaminated forage can be treated by *Trachyspermum ammi*, *Allium sativum*, *Zingiber officinale*, *Acacia catechu* and *Aegle marmelos*. Foot and mouth disease (FMD) is a contagious bacterial disease in which animal shows boils and vesicles on foot and mouth. It can be treated with *Datura stramonium*, *Trachyspermum ammi*, *Allium sativum*, *Curcuma longa* and *Brassica campestris* oil.

Azadirachta indica, *Feronia limonia*, *Tridax procumbens* and *Maytenus emarginata* etc. plants are used in curing foot rot which is a viral infection leads to inflammation and swelling on foot. *Cassia fistula*, *Trachyspermum ammi*, *Curcuma longa* and *Brassica campestris* oil are some common herbs used in high temperature condition of cattle. *Trigonella foenum- graecum*, *Abrus precatorius*, *Calotropis procera* are mainly used in cold condition of cattle. Leaf paste of *Achyranthes aspera*, *Tridax procumbens*, *Annona squamosa*, *Feronia limonia*, *Azadirachta indica* and *Phyllanthus emblica* are found to be highly effective in healing of wounds. Scabies is a dermal infection caused by mites and ticks which can be treated by leaves of *Origanum majorana*, *Azadirachta indica* and *Balanites aegyptiaca*.

Unexpelled placenta or retented placenta is also a common disorder among cattle after parturition which is caused either by hormonal deficiency or under nourishment. This is treated by *Bambusa arundinacea*, *Mangifera indica*, *Abrus precatorius* and *Linum usitatissimum*. Similarily prolapsed is also seen among cows and buffaloes which can be cured by *Cuscuta reflexa*, *Mimosa pudica*, *Tridax procumbens* and *Agave americana*. Urine retention is treated by *Allium cepa*, *Amomum subulatum*, *Calotropis procera*, *Ricinus communis* and Camphor.

Conjuctivitis of cattle showing excessive deposition of smag can be treated with leaves of *Coccinia grandis* and *Nicotiana tabacum*, salt, water fomentation. Sprain can be treated with decoction of *Azadirachta indica*, *Capparis decidua*, *Brassica campestris* oil coated *Ricinus communis*.

Brucellosis or abortion may be due to inflammation and weakness of uterine muscles, hormonal imbalance, nutritional deficiency and bacterial infection. Foetus aborts out without completion of gestation can be treated with *Lawsonia inermis*, *Piper nigrum*, *Trachyspermum ammi*, *Zingiber officinale*.

Alopecia of cattle exhibits loss of hair tuft of tail. It can be treated with dipping hairless tail end in boiling *Brassica campestris* oil and *Allium sativum* extract boiled in mustard oil. Several times cattle get suffered of food poisoning, due to ingestion of toxic plants or poisonous material containing toxic bacteria, eating pesticides. Cattle shows muscular and motor paralysis, excessive salivation, convulsions and abdominal pain, which can be treated with *Linum usitatissimum*, *Allium sativum*, *Brassica campestris* oil and butter milk. Cough can be treated with roasted seeds of *Strychnos nuxvomica*, *Linum usitatissimum*.

Hot fomentation of *Azadirachta indica*, paste of *Curcuma longa* and salted butter, *Indigofera tinctoria* are found to be highly effective in the treatment of mastitis. Recipes of *Tamarindus indica*, *Zingiber officinale*, *Azadirachta indica*, *Ferula asafoetida* and *Brassica campestris* oil are found to beneficial in gastroenteritis infection.

The use of plants and their products in the treatment of animals differ according to the availability of plants in the area. There are large numbers of ethnoveterinary plants but their availability depends on climatic condition of the area. Even the knowledge of plant recipe varies with locality to locality and practioner to practioner. There is huge number of plants available to be used in the cure of animals. Single herb can be utilized for various ailments singly or in combination with other ingredients. Every part of the plant can be used in the form of medicine. They are easy to prepare and administer. Some herbal ingredients are common in most of the regions of our country and are evidenced by studies of various workers. Approximately 14 plants of veterinary importance has been found in Warangal [1] some of which were similar with the findings of Orissa [2], 32 veterinary medicines were traced out in Gujarat [3] and 26 in Maharashtra [4]. Similarly, biomedicines were also identified in Uttrakhand [5] which also corresponds with the observations of present study. While some ingredients and formulations used in Gwalior are different in several regions of Andhra, Rajasthan, etc. [6-10].

CONCLUSION

As these medicines are safe, they should be grown in our vicinity to increase their availability. Systematization of the knowledge should be done. Pharmaceutical enhancement can be carried out with development of such types of drugs which not only provide standardization of these drugs but also enhance the chances of employment and further research. There is need for upgradation of this precious knowledge. Awareness programmes and seminars should be conducted to spread this knowledge among other villagers as well as cattle rearers of the society. Standardization and systematization of ethnoveterinary medicines are the prime requirement of present time.

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