ABSTRACT

CLINICO-PATHOLOGICAL EVALUATION OF SELECTED ETHNO VETERINARY PRACTICES

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In the present scenario of treating livestock diseases, ethno veterinary practices which are considered as age old traditions forms the centre stage by claiming the protocol as environmental friendly as well as devoid of toxicity in the animal system. Many research findings are published by the researchers keen in the progress and prospects of ethno veterinary practices with a few exceptions towards the adverse effects and chronic toxicity in the use of this traditional practice. There has been a debate among the veterinary community pertaining to the efficacy, accuracy and safety towards this practice. This research work has been undertaken in order to derive clarity in selected ethno veterinary practices and to study the status and usage of herbal preparations by the traditional practitioners of Cuddalore and Nagapattinam districts of Tamil Nadu.

This study was carried out to document ethno veterinary practices in selected areas of Cuddalore and Nagapattinam districts. The process of documentation opened many ideas about the prevailing situation of ethno veterinary practices in the study location. In most of the places, ethno veterinary practices were performed by illiterate people. They are mostly school drop outs or from very lower strata of the community. In addition, local veterinary doctors and veterinary assistants were interviewed for their involvement in this traditional
method of treating animal diseases. From the interview conducted among the livestock keepers, traditional practitioners and veterinarians, there was a wide flow of thought which favoured the use of ethno veterinary practice. The greater percentage of the respondents opted for a safe, effective, cost effective medicine which must be sustainable enough for their animals. The interview also highlighted the need for effective documentation of this age old tradition because, this knowledge is with the aged practitioners. It may be lost in due course of time unless the system is delivered to the next generation and effective steps must be initiated to protect in due course of time. The respondents highlighted the constraints due to which this traditional practice does not flourish. From the study it was understood that it is a collective responsibility of the government, educational institutions and veterinary professionals to continue and revitalize this age old traditional veterinary practices. The documentation during this study echoed a severe threat to this tradition.

Like any other technology in veterinary practice, ethno veterinary practice also has its own constraints. Nearly 75% of the farmers opined about the non-availability of medicinal plants for certain specific diseases. There is a lack of preventive medicines for all diseases and treatment protocol like formulations, dosage, frequency of administration as in allopathic treatment. There are few experienced veterinarians who believe and practice ethno veterinary practices and most of the treatments are done on trial and error basis. In many places, EVP is not recommended by most of the veterinarians. There are discrepancies in the names of herbs and the disease condition for which they are used in different places.

In the present study, clinical evaluation was performed for Bovine mastitis, Foot and Mouth disease in cattle and coccidiosis in broiler chicken. As per the protocol designed, the clinical cases were evaluated for the medicinal preparation formulated by the traditional healers. The results of the evaluation was encouraging in terms of haematology and serum enzyme level which were estimated pre and post treatment period. Though the results were satisfactory, it was noticed that many treatment regimen were proposed by the local traditional farmers by virtue of their experience alone.
The toxicity of mono herbal and poly herbal medicinal herbs were studied by conducting 60 days in white wistar rats. The rats were fed with 50 ppm and 100 ppm of aqueous extract of *Aloe vera*, *Ocimum sanctum*, *Phyllanthus niruri* and aqueous poly herbal extract. Clinical samples were studied on fortnightly interval till day 60. Though the above mentioned medicinal herbs gave expected results based on their individual medicinal properties, the poly herbal aqueous extract, a combination of all the three medicinal herbs when fed to rats altered the haematology and serum chemistry in a significant manner. This is a preliminary study which was supported by histopathological lesions of liver and kidney, the organs preferred for toxicity and drug compatibility studies.

It is the need of the hour to assess individual active principle pertaining to the medicinal herbs in a particular locality. Hence, by considering the adverse effects of some medicinal herbs or indiscriminate usage of poly herbal formulations without any scientific validation are to be curtailed in the field level. The ethno veterinary practitioners are to be formally trained in order to prevent indiscriminate usage of herbal preparation. It is concluded that the efficacy of the traditional veterinary practices without a compromise in the normal physiology of livestock and birds is still open to question and hence further research is needed to confirm the claims made by the farmers and the traditional healers.