A Survey on Utilization of Siddha Drugs in Veterinary Practices of Pattukottai Division, Thanjavur District

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ABSTRACT

Siddha medicine is the mother medicine of the ancient Dravidians in south India. The Siddha system of medicine is as old as mankind and dominated the civilization of the southern peninsula of India. Medicinal plants have been used in veterinary science since ancient times. The Government of Tamil Nadu introduced the Siddha medicine concept in veterinary science in 1992. The aim of this study was to conduct a survey on the use of Siddha medicine in veterinary hospitals and dispensaries. A cross-sectional study with a questionnaire was carried out among veterinarians in Pattukottai division, Thanjavur district, Tamil Nadu. Veterinary diseases for which these Siddha medicines are already known to be used in folk medicine are also indicated. Siddha drugs need experimental work and evaluation in veterinary practices.

KEYWORDS: Siddha drugs, Veterinary hospitals, Folk medicine.

1.INTRODUCTION

India is primarily an agricultural country with predominance of rural population and

hence animals play a great role in economy and social welfare. The Siddha system of medicine is a traditional medical system, which provides "Holistic Health". The system provides preventive, promotive, curative, rejuvenative and rehabilitative health care with scientific and holistic approach. Siddha system also offers effective treatment options for various common ailments, helps to improve the quality of life by better management of lifestyle disorders and illness of various system of the body. MAATTU VAGADAM is the script specially written for the treatment of aliments in cattle, horse and birds. The use of drugs in food producing animals has the potential to generate residues in animal derived products (meat, milk, and honey) and poses a health hazards the consumer. The use of antibiotics in livestock and poultry lead to the emergence of antibiotics-resistant pathogens which decreased the efficiency of antibiotics used for medical purpose. Owing antimicrobial resistance that threats public human health and increased awareness many countries banned use of animal antibiotics in production. necessitates looking for an alternative to antibiotics growth promoters.

To reduce these drug residues problem an initiative was taken by the Govt Of Tamil Nadu to introduce Siddha medicine concept in veterinary science in the year 1992. The Siddha drugs kit are being supplied to all the veterinary hospitals and veterinary dispensaries functioning under the control of Department of Animal Husbandry, Government Of Tamil Nadu.

Siddha medicine kit contains 11 medicines: 1. Thayir chunti chooranam, 2. Thirikadugu chooranam, 3. Thiripala chooranam, 4. Pancha deepakni chooranam, 5. Nilavembu chooranam, 6. Seenthil chooranam, 7. Karisalai chooranam, 8. Inji chooranam, 9. Vallarai chooranam, 10. Jeeraga chooranam, 11. Mathan thylam and instead of these medicines some of the home remedies used by veterinary practices.

These Siddha medicines are great importance for animal healthcare in India. The present study deals with Siddha pattern medicine and ethnomedicinal source and which are not so far include in veterinary practices.

2.AIM

Documentation on utilization of Siddha drugs in veterinary practices.

3.OBJECTIVES:

PRIMARY OBJECTIVE

To study the utilization of Siddha drugs for treating various disease in livestock.

4.STUDY PERIOD:

4 Months

5.STUDY POPULATION

This research work was conducted in veterinarians of Pattukotttai division, Thanjavur district.

6.STUDY DESIGN

Cross sectional study.

7.STUDY PLACE

Pattukotttai division, Thanjavur district.



8.DATA COLLECTION AND ANALYSIS INFORMATION COLLECTED

The information was collected from veterinarians in Pattukotttai division, Thanjavur district.

QUESTIONNAIRE BASED INTERVIEW

Requested appointment from each veterinarian in Pattukottai division, Thanjavur Dist.

The study was explained at the time of appointment and the informed consent was

collected from the veterinarians. Data were collected by requesting the veterinarians to answer the questionnaire. Personal information's from the collected data kept confidential.

DATA ANALYSIS

All collected data were analyzed statistically.

9.STUDY METHODOLOGY

Study was conducted among various veterinarians visiting Pattukotttai division, Thanjavur district.

Assessment of study by questionnaire.

Data collection was evaluated.

Data were analyzed.

Completion of the study.

Submission of the report.

ETHICAL REVIEW

Institutional screening committee approval The proposal was submitted to the Screening committee to get the approval.

ETHICAL ISSUES

The data from the Veterinarians in Pattukottai kept confidentially. Informed consent was obtained from the veterinarians. This study involved only the necessary enquiries.

QUALITY ASSURANCE

Data collected was reviewed by review board & experts opinion were taken. The whole procedure of the research was supervised by guide & faculty of our department.

CONFIDENTIALITY

The personal information of the participants kept in confidential manner.

INFORMED CONSENT

The participant was informed about the study in their own language.

The study was conducted only after their consent

10.RESULT

GOVERNMENT APPROVED SIDDHA MEDICINE FOR VETERINARY HEALTH CARE

Table – 1

| | 1 abie – 1 | | | | |
|------|-------------------------------|----------------------|------------------|--|--|
| S.NO | NAME OF THE PREPARATION | PRESENTATION FORM | INDICATION | DOSE | |
| 1 | JEERAKA CHURNAM | POWDER | ENTERITIS | Calves: 5gms in Jaggery Oral | |
| 2 | INJI CHURNAM | POWDER | BLOAT | Calves:5gms Cattle:15gms oral | |
| 3 | PANCHA DEEPAGNI CHURNAM | POWDER | INDIGESTION | Calves:5gms Cattle:15gms Oral Goat&Sheep:2gms | |
| 4 | THAIR CHUNTI CHURNAM | POWDER | ENTERITIS | Calves:5gms Cattle:15gms Oral Goat&Sheep:2gms | |
| 5 | THRIKADUGA CHURNAM | POWDER | BLOAT | Calves:5gms Cattle:15gms Oral Goat&Sheep:2gms | |
| 6 | THRIPALA CHURANAM | POWDER | STOMACHACHE S | 2gm in 10 gm of Honey or Ghee for Oral application | |
| 7 | SEENTHIL CHURNAM | POWDER | FEVER | 2gm in 10 gm of Honey or Ghee for Oral application | |
| 8 | NILAVEMBU CHURNAM | POWDER | FEVER | 2gm in 10 gm of Honey or Ghee for | |

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| | | | | Oral application |
|----|----------------------|--------|------------------------|--|
| 9 | KARISALAI CHURNAM | POWDER | FEVER | 2gm in 10 gm of Honey or Ghee for Oral application |
| 10 | VALLARAI CHURNAM | POWDER | PERIPHERAL NEURITIS | Goat: 5gms in Jaggery Oral |
| 11 | MATHAN THAILAM | OIL | WOUNDS | As directed – External use |

THE HERBAL MEDICINE USED FOR LIVESTOCK DISEASE

Table - 2

| | S Lable - 2 | ON | Z |
|---|--|-----------------------|------------------------|
| INDICATIONS | MAIN INGREDIENTS | PREPARATION FORMS | ROUTE OF ADMINISTATION |
| Madi Veekkam (Mastitis) | Katrazhai(Aloe vera) - 250 g Manjal(Curcuma longa) – 50g Chunnambu – 15g | Karkam | External |
| Vayeru Uppusam | Vetrillai(Piper betle) -10 No Poondu(Allium sativum) – 5pal Pirandai(Cissus quadrangularis) – 10 Milagu(Piper nigrum) – 10 Vengayam(Allium cepa) – 5pal Chirakam(Cuminum cyminum) – 10g Inji(Zingiber officinale) – 100g Manjal (Curcuma longa)– 10g | Karkam | Internal |
| Kudal Pulu Neekkam | Peria Nankai(<i>Polygala elongata</i>) Kuppai meni(<i>Acalypha indica</i>) leaves+ kalluppu Vetrillai juice (<i>Piper betle</i>) + Pakal juice (<i>Momordica charantia</i>) - 200 ml Katrazhai(<i>Aloe vera</i>) + Castor oil | Karkam (kaiyalavu) | Internal |
| Nanju kodi (placenta) Poduvatharkku | Mungkil(Bambusa arundinacea) Vazhai(Musa paradisiaca) | | Internal |

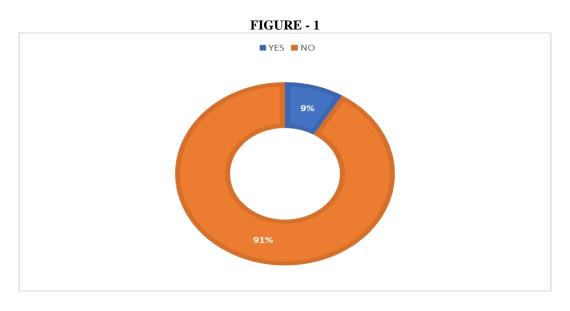
| Ammai Noi | Chirakam(Cuminum cyminum) - | karkam | Internal |
|-----------|--|--------|----------|
| | 10 g | | |
| | Ventayam(Trigonella foenum graecum) - 10g | | |
| | Poondu(<i>Allium sativum</i>) – 1pal | | |
| | Milagu(<i>Piper nigrum</i>) – 5 | | |
| | Murungai(Moringa oleifera) leaf -1 kaipidi | | |

| Manjal(<i>Curcuma longa</i>) – 10g Thulasi (<i>Ocimum sanctum</i>) - 1 kaipidi | | |
|---|-----|----------|
| Karkam with neem oil 100ml + Castor oil -100ml | Oil | External |

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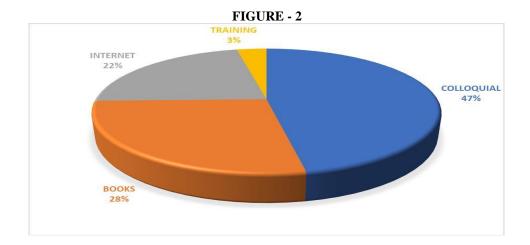
| Komaari Noi | Chirakam(Cuminum cyminum) – 10g Ventayam(Trigonella foenum graecum) - 10g Milagu(Piper nigrum) — 10g Manjal(Curcuma longa) – 10g Poondu(Allium sativum) -5pal Vellam – 100g Coconut milk (Cocos nucifera) | Karkam (5 Days) | Internal |
|-------------|---|--------------------|----------|
| Kaal pun | Gingelly oil – 1litre Poondu(Allium sativum) – 10 pal Manjal(Curcuma longa) - 10g Thulasi (Ocimum sanctum) – 10 Leaves Kuppai meni(Acalypha indica) – 10 leaves Azhavanam(Lawsonia inermis) - 10 leaves Veppilai (Azadirachta indica) – 10 leaves | Oil | External |
| Kalichal | Chirakam(Cuminum cyminum) - 10g Kasa Kasa (Papaver somiferum) - 10g Ventayam(Trigonella foenum graecum) - 10g Milagu(Piper nigrum) - 5 Manjal(Curcuma longa) -5 gm Perungayam(Ferula asafoetida) - 5g Vengayam(Allium cepa) - 12 Poondu(Allium sativum) - 2 pal Kareveppilai(Murraya koenigii) - 10 leaves Karuppatti - 100 g | Karkam | Internal |

HANDS-ON-TRAINING / ANY SORT OF TRAINING GIVEN ON HOW TO MAKE USE OF SIDDHA MEDICINES FOR CATTLE



WAYS TO COLLECT INFORMATION ABOUT SIDDHA DRUGS

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FOR WHICH TYPES OF CATTLE DO YOU USE SIDDHA MEDICINES THE MOST

COW 21

GOAT 16

HEN & COCK 5

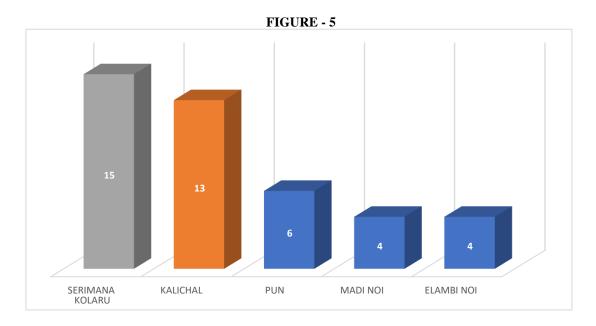
BUFFALO 2

FOR WHICH DISEASES DO YOU USE SIDDHA MEDICINE THE MOST

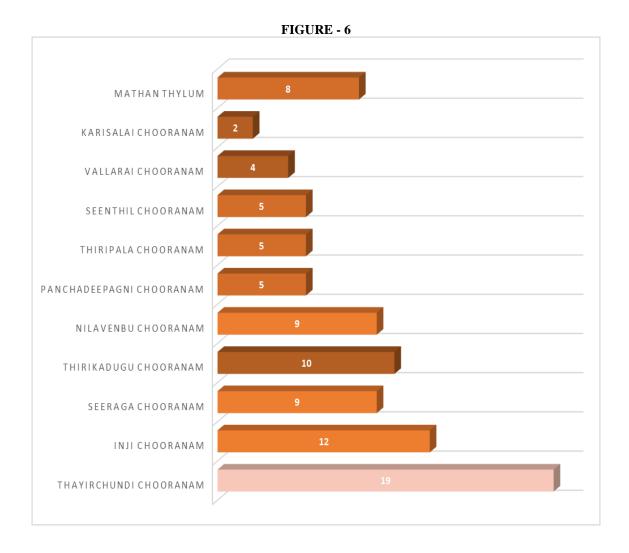
20
14
12
10
8

KALICHAL SERIYAMAI SURAM THOOL MADI NOI NOIGAL

FOR WHICH DISEASESIN CATTLE DOSE SIDDHA MEDICINE WORK BEST

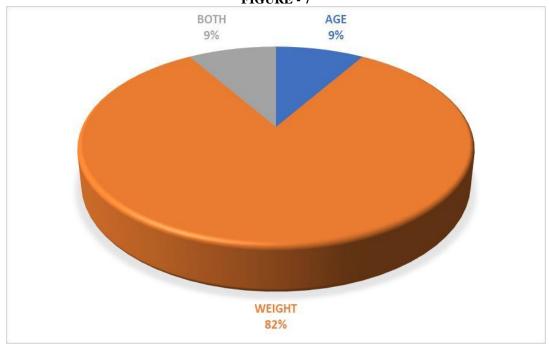


SIDDHA MEDICINE ARE MOST WIDELY USED IN LIVESTOCK



DOSAGE OF THE DRUG FOR LIVESTOCK

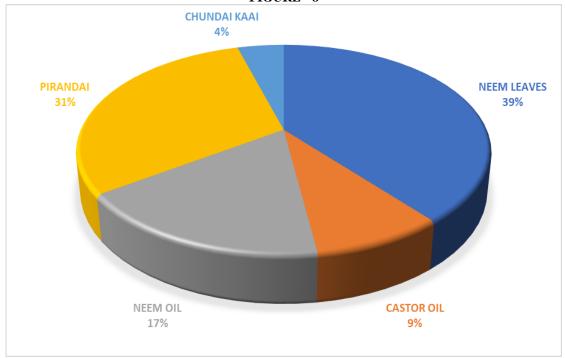
FIGURE - 7



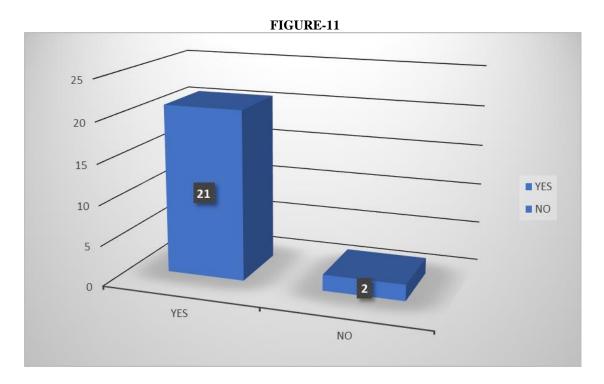
| Fever | Pappali juice (<i>Carica</i> papaya) Nila vembu Chooranam | Internal |
|-----------|---|----------|
| Ammai Noi | Veppilai (Azadirachta indica) + Manjal (Curcuma longa) | External |
| | Nila vembu Chooranam | Internal |

SIDDHA MEDICINE USED TO WORMS FOR CATTLE

FIGURE - 8



HERBAL HOME REMEDIES USED BY HERDERS FOR LIVESTOCKS



HERBAL HOME REMEDIES USED BY HERDERS FOR LIVESTOCKS

TABLE - 6

| DICEACE | | TABLE - 0 |
|--------------|-----------|--|
| DISEASE | | TREATMENT |
| KALICHAL | | 1.VAAZHAI POO (Musa paradisiaca) |
| | | 2.MARUTHAM PATTAI (Terminalia arjuna) |
| | | 3.MAATHULAI ELAI (Punica granatum) |
| | | 4.KOVAI ELAI (coconia grandis) |
| INDIGESTION | | 1.VETTRILAI (Piper betle) |
| | | 2.VETTRILAI (Piper betle) + KIZHKAI NELLI |
| | | (Phyllanthus amarus) |
| | | 3.MANJAL (Curcuma longa) + INJI (Zingiber officinale) + |
| | | MILAGU (Piper nigrum) |
| | | 4.VETTRILAI (<i>Piper betle</i>) + MILAGU |
| | | (Piper nigrum) + CHIRAKAM (Cuminum cyminum) + |
| | | INJI (Zingiber officinale) |
| | | 5.CHIRAGAM (Cuminum cyminum) + PERUNGAYAM |
| | | (Ferula asafoetida) + INJI (Zingiber officinale) |
| | | 6.PIRANDAI (Cissus quadrangularis) + NOCHI |
| | | (Vitex negundo) + MILAGU (Piper nigrum) + VETTRILAI (Piper betle) |
| JAUNDICE | | 1. KIZHKAI NELLI (Phyllanthus amarus) |
| MADIVEEKAM | | KATRAZHAI (Aloe vera) |
| | | KATRAZHAI (<i>Aloe vera</i>) + CHUNNANBU |
| | | KATRAZHAI (Aloe vera) + ELUMICHAI (Citrus limon) + |
| | | MANJAL (Curcuma longa) |
| PUN | | 1.SOODAN + THUMBAI ELAI (<i>Leucas aspera</i>) |
| | | 2.PUTHIRUKAN PLANT (Puthiranjeeva roxburgii) |
| | | 3.KUPPAI MENI (Acalypha indica) + MANJAL (Curcuma longa) |
| NANJU (F | PLACENTA) | 1.MUNGKIL KODI (Bambusa arundinacea) |
| PODUVATHARKU | • | |

SEASONAL LIVESTOCK DISEASES

TABLE - 7

| SEASON | DISEASES |
|--------------------------------|----------------------------|
| MAZHAI KAALAM (RAINY SESSION) | 1.KALICHAL |
| | 2.COLD |
| | 3.KOOMAARI NOI |
| | 4.WOUND |
| | 5.AMMAI NOI |
| | 6.LMP (LUMPY SKIN DISEASE) |
| | 7.FOOT ROT |
| | 8.BLOAT |
| | 9.FMD |
| | 10.MADIVEEKAM |
| | 11.FEVER |
| KOODAI KAALAM (SUMMER SESSION) | 1.SKIN DISEASE |
| | 2.AMMAI |
| | 3.KUDAL PUZHU |
| | 4.POX VIRUS |
| KULIR KAALAM (WINTER SESSION) | 1.SEIYAMAI |
| , , | 2.KALICHAL |

IF ANY ADDITIONAL SIDDHA MEDICINES NEEDED FOR CATTLE?

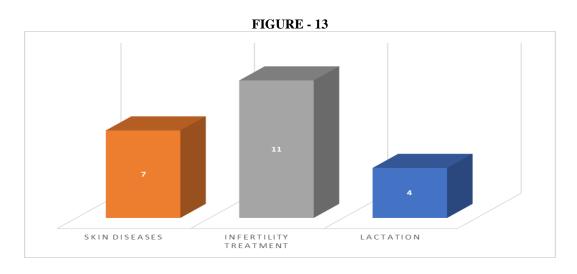
FIGURE - 12

23

YES

NO

SIDDHA MEDICINES REQUIRED FOR THE LIVESTOCK DISEASES



PLANTS USED IN CONTEMPORARY VETERINARY PRACTICE ABLE - 8

| S.no | Common Name | Botanical Name | Family |
|------|-------------|-----------------------|----------------|
| 1. | Manjal | Curcuma longa | Zingiberaceae |
| 2. | Vembu | Azadirachta indica | Meliaceae |
| 3. | Pakal | Momordica charantia | Cucurbitaceae |
| 4. | Chirakam | Cuminum cyminum | Apiaceae |
| 5. | Arisi | Oryza sativa | Poaceae |
| 6. | Pappali | Carica papaya | Caricacaea |
| 7. | Vengayam | Allium cepa | Amaryllidaceae |
| 8. | Milagu | Piper nigrum | Piperaceae |
| 9. | Poondu | Allium sativum | Amaryllidaceae |
| 10. | Inji | Zingiber officinale | Zingiberaceae |
| 11. | Kuppai meni | Acalypha indica | Euphorbiaceae |

| 12. | Karuppura valli | Coleus aromaticus | Lamiaceae |
|-----|--------------------------|---------------------------|----------------|
| 13. | Thulasi | Ocimum sanctum | Lamiaceae |
| 14. | Coconut | Cocos nucifera | Arecaceae |
| 15. | Kizhkai Nelli | Phyllanthus amarus | Phyllanthaceae |
| 16. | Vetrillai | Piper betle | Piperaceae |
| 17. | Ventayam | Trigonella foenum graecum | Fabaceae |
| 18. | Parutti | Gossypium herbaceum | Malvaceae |
| 19. | Puvarasu | Thespesia populnea | Malvaceae |
| 20. | Mungkil | Bambusa arundinacea | Poaceae |
| 21. | Murungai | Moringa oleifera | Moringaceae |
| 22. | Kareveppilai(Kari vempu) | Murraya koenigii | Rutaceae |
| 23. | Katrazhai | Aloe vera | Asphodelaceae |
| 24. | Agathi | Sesbania grandiflora | Fabaceae |
| 25. | Pirandai | Cissus quadrangularis | Vitaceae |
| 26. | Perungayam | Ferula asafoetida | Apiaceae |
| 27. | Ell | Sesamum indicum | Pedaliaceae |
| 28. | Kasa Kasa | Papaver somiferum | Papavaraceae |
| 29. | Sundai | Solanum torvum | Solanaceae |
| 30. | Thumbai | Leucas aspera | Lamiaceae |
| 31. | Peria Nankai | Polygala elongata | Polygalaceae |
| 32. | Nilakkadambu | Elytraria acaulis | Acanthaceae |
| 33. | Nila Vembu | Andrographis paniculata | Acanthaceae |
| 34. | Vasambu | Acorus calamus | Acoraceae |
| 35. | Kadugu | Brassica juncea | Brassicaceae |
| 36. | Azhavanam (Maruthani) | Lawsonia inermis | Lythraceae |
| 37. | Vilvam | Aegle marmelos | Rutaceae |
| 38. | Vazhai | Musa paradisiaca | Musaceae |
| 39. | Maruthu | Terminalia arjuna | Combretaceae |
| 40. | Mathalai | Punica granatum | Lythraceae |
| 41. | Kovai | Coccinia grandis | Cucurbitaceae |
| 42. | Malai vembu | Media azedarach | Meliaceae |
| 43. | Adatodai | Justicia beddomei | Acanthaceae |

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| 44. | Notchi | Vitex negundo | Lamiaceae |
|-----|--------------------|-------------------------|----------------|
| 45. | Elumichai | Citrus limon | Rutaceae |
| 46. | Amman-pach-charisi | Euphorbia pilulifera | Euphorbiaceae |
| 47 | Puthirakan | Puthiranjeeva roxburgii | Putranjivaceae |

DISCUSSION

This study was carried out among 23 veterinarians at a veterinary hospital in Pattukotttai division of Thanjavur district.

The study revealed that Siddha drugs were used to treat a wide range of conditions such as Mastitis, Bloat, FMD (Foot and Mouth Disease), Dysentery, Fever, LSD (Lumpy skin disease) and Wound.

Some of the drugs have multiple indications in livestock health care (Vembu -Azadiracta indica, Manjal-curcuma longa, Vengayam - Allium cepa, Kattralai- Aloe vera, Pirandai Cissus quadrangularis, Murungai -Moringa oleifera, Kariveppilai -Murraya koenigii, Kuppaimeni -Acalypha indica, Milagu-Piper nigrum, Chirakam — Cuminum cyminum).

Most cattle-herders have some knowledge of herbal medicines. Simple treatment for healing wounds (eg: Kuppai meni + manjal) and de-worming (eg: Neem Leaves) are usually carried out by the herders themselves. In case of complicated problems, they take help from others.

Patent siddha herbal medicine are also used for the treatment of livestock diseases.

CONCLUSION

According to the study, the use of Siddha drugs is well received in veterinary medicine. Hereafter conducting more training workshop on siddha drugs for veterinarians will help in the management of Siddha medicines in veterinary health care. As for humans, all Siddha medicine can be prescribed for animals according to their weight. We are enlisted most of the medicines in this study. Siddha drugs can also be used for chronic diseases in livestock. So, the side effects are less. Efforts should be made to prescribe more Siddha drugs for livestock diseases in future.

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Conflict of Interest: The authors declare no conflict of interest.

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