ĀYURVEDIC TREATMENT FOR CATTLE (PAŚU ĀYURVEDA) W. S. R. TO SAHADEVA PAŚU ĀYURVEDA

Goli Penchala Prasad* & Ala Narayana**

ABSTRACT

Ancient Indian literature has been serving as a source of invaluable knowledge for the origin and development of many sciences including Medicine. Ayurveda is well known for its eight branches (Aṣṭāngāyurveda). Further it has been flourishing with many other branches of Medicine like Plant medicine (Vrikṣāyurveda), Medicine of Cattle (Paśuāyurveda), Medicine of Horse (Aśvāyurveda) and Medicine of Elephant (Gajāyurveda). Studies reveal domestication of animals in India between 6000 and 4500 BC. Strong archaeological evidence is available for existence of an advanced civilization in Mohenjodaro, Harappa and certain other places in northern India around 2500 BC. The people of these civilizations had humped and hump less cows, buffaloes, elephants, goats, fowl, etc. Cattle husbandry was well developed during the Rgvedic period and the cow (Kamadhenu) was adored and considered the 'best wealth' of mankind. Aryanslaid great emphasis on protection of cows. Vedic people worshiped Gods for the cow's fertility and progeny. Atharvaveda provides interesting information about ailments of animals, herbal medicines, and cure of diseases. Śālihōtra the first known veterinarian of the world was an expert in horse husbandry and medicine and composed a text Hastyāyurveda / Aśvāyurveda (Medicine of Horse). Sage Pālakāpya was an expert dealing with elephants and composed a text Gajāyurveda. Nakula and Sahadeva were experts of horse and cattle husbandry. Many texts on animal $\bar{A}yuvedic$ medicine became extinct and some are available in in-complete form. Based on available literature scholars of medieval periods have written some books which include their experience based treatments. Considering the subject specialization these books have also been popularized by the names of Sālihōtra etc. and the authors are popularized as Sālōtra. Present day availability of many small manuscripts by the name of Śālihōtra is the evidence of this tradition. Sahadeva paśuāyurveda is the available palm leaf manuscript which is written in Telugu poems. As per the remarks of the author (Naranārya) the text was based on Sanskrit text written by Sahadeva. Many worthy and time tested formulations of this text made it popular in Andhra Pradesh and the manuscript was translated to Telugu prose and published with many editions.

Key words:- Naranārya, Sahadeva paśu āyurveda, cattle, Nallatevulu, Pulikadugu

^{*}Research Officer (Ay.) & ** Director, National Institute of Indian Medical Heritage (CCRAS), Gaddiannaram, Hyderabad-500036.

Introduction

Cattle are considered as wealth and back bone of the Indian society. The *Vedic* Society in India was dominated by the 'cow culture' and *Vedic* people adored the cow and regarded it as the source of their good fortune, happiness, and good health. Because of their great economic value, *Vedic* men prayed to be lords of cattle, priests asked for *Dakṣiṇa* (donations) in the form of cattle and warriors sought to fight for cattle.

Mahābhārata, Rāmāyaṇa, various Purāṇa (epics) and other Indian religious literature accentuate cow as divine gift. Cattle are the most frequently used animals in social and religious ceremonies. Role of Cattle in agriculture is also immensely known. Āyurveda the holistic science has specifically emphasized the role of animal products both as diet and Medicine. Ancient non medical literature stresses their concern over the protection of Cattle. Ancient literature have scattered information regarding the diseases and treatment of cattle and other animals like elephants and horses. As per the available literature the famous Veterinary scholars are Śālihōtra, Palakāpya, Nakula and Sahadeva. Along with these scholars Vyāsa, Nārada, Mrgacarma, Dinapati, Brsapati, Śukra, Vīraṣena, Jayadattasūri, Gaṇamalladeva, Siṁhadatta, Jayadeva, Gārga, King Induṣena, King Bhōja, Sōmeṣvara, Kauṭilya, Manu, Bāsavamantri, Rudradeva etc scholars also contributed their services to ancient Veterinary science¹.

Arhtha śāstra (An ancient text on economy) written by Kauţilya, the writings of Magesthenes and the edicts of King Aṣoka are regarded as the ancient authoritative sources for the study of administrative machinery for the protection of cattle. As per Kauţilya's Arthaśāstra cattle rearing is the second most economic activity². During this period cows were reared for milk and bulls were used for agriculture. Cattle and other animals breeding were given special concern and one of the officials of the palace was given the post of King's breeder. The young, the old and the diseased cows were given more protection and care. During this period if Veterinary doctors are careless in treatment causing damage of animals they were fined for even equal to the cost of animal³.

Hundreds of well equipped veterinary hospitals were set up by King Aśoka. They were staffed by specially trained doctors and paid by the state. Aśoka's II Rock Edict states about two kinds of hospitals; one type of hospitals for men and other hospitals for animals. Wherever there were no healing herbs, either for men, or for animals, he commanded to bring them from outside and see them to be planted⁴. These were the first ever veterinary hospitals known world over. Ancient books like Śālihōtra's and Nakula's treatises on Horses, Pālakāpya's Gajāvurveda (treatise on elephants), Sahadevā's Gośāstra are some of the

super specialty ancient books on Veterinary Äyurvedic Medicine. These books became very popular in ancient days and later veterinarians are identified by the names of their specialties as Śālihōtrīya. The word Śalūtrī used in Northern India to denote veterinary doctors is only a derivative of the word Śalihōtrīya¹.

As per the view of the author of Sahadeva's paśu-āyurveda (available Telugu manuscript), the text was written by Sahadeva during his tenure of exile $(Aj\bar{n}\bar{a}tav\bar{a}sa)$ under the King Virāṭa for the treatment of royal cattle. Based on the copy of palm leaf Telugu manuscripts procured by NIIMH from the Archeological museum, Kakinada, A.P., and an old Telugu publication of Appalaswamy and sons, Rajamandhry, an attempt was made to identify and equate the diseases and drugs with modern and scientific names.

Now the original Sanskrit text of Sahadeva is not available. The available Sahadeva paṣu āyurveda was written in Telugu verse. The text has many simple formulations and single drug therapies for various common diseases of cattle. In due consultation with linguistic experts, Veterinary experts and referring relevant books, scientific equivalents of many Telugu dialects are identified. The names of diseases are equated to contemporary allopathic names and the ingredients of formula with Botanical / chemical names for global acceptance and easy understanding.

A cattle suffering from visible swelling in throat region refuses the fodder. As per the text, piercing the external swelling over the throat with the thorns of *Balanites roxburghii* Planch and cauterizing with hot iron rod relieves this painful swelling and inflammation ^{7, a}. Eating the diseased fodder leads to severe diarrhea of the cattle. Administering the paste of leaves of *Paidipatti* (*Gossypium barbadense* Linn)^{9, 10} along with flock of cotton dipped in sesame oil cures the disease¹¹. Buttermilk mixed with powder of three pungents (dry ginger, long pepper and black pepper) cures the diarrhea of the calf ^{12, b}.

Excessive intake of fodder causes indigestion. Administering the buttermilk mixed with paste prepared by grinding crystal salt, mustard powder, and garlic for 15 days cures the disease¹³. Excessive intake of milk causes indigestion in calves. Treating calves with curd mixed with paste of leaves of *Gañja* (*Cannabis sativa* L.) cures the indigestion¹³.

a. Recent researches find the main reason for swelling of throat along with high fever, cold and cough as hemorrhagic septicemia caused by bacteria. Vaccination before rainy season can prevent this for a period of six months⁸.

b. Among variant types of diarrhea like nutritional, parasitic, infectious, coccidial, toxic etc, these treatments are considered more efficacious in nutritional diarrhea.

c. a fermented drink of cattle made up of with the washings of rice and vegetable wastages

Excessive intake of Sorghum grass fodder along with its spikes causes flatulence. Water mixed with the ash prepared by burning old stalks of the Sorghum is indicated ¹⁴.

In a condition named Iruvayikattu cattle suffers from breathlessness and obstruction of all sorts of excretions 15, 16. Administering the expressed juice of leaves of Abrus precatorius Linn, along with Kali causes purgation and cures the disease¹⁷. The excess usage of leaves of Abrus precatorius Linn causes poisonous effect^a; hence the dose of mixture of Kali and leave's juice is restricted to half Gottam (approximately 140 ml.)^{17, b}. Further juice prepared by grinding leaves of Cassia auriculata L. in kadugu^c is indicated to avoid side effects of Abrus leaves¹⁷.

External application of collyrium (fine paste) prepared by grinding black pepper and long pepper in water cures jaundice²¹. Nasal Instillation of expressed juice of Eclipta alba Hassk. for 8 days also mitigates jaundice²¹.

In fractured leg cattle can not walk properly. Bandaging the leg with the paste prepared by grinding the mixture of black gram, butter, leaves juice of Vitex negundo L. and milk and restricting the movements for 7 weeks normalizes the leg and gait²¹.

For the cattle suffering from wasting of leg, rest and daily massage with medicated milk made by mixing milk with the juice of leaves of Cadaba indica LAM (cekondi) is indicated for 20 days²².

Cattle suffering from skin lesions (*Tīṭa and Gajjī*) d and severe itching becomes restless. External use of paste prepared by grinding the rhizome of Nelumbo nucifera Geartn, seeds of *Datura metel* Linn and leaf juice of *Pergularia daemia* (Forssk.) chiov. cures the disease²⁴. Internal administration of the decoction prepared from the gum of Salmalia malabarica sehott EndI., flowers of sesame (Sesamum indicum Linn.) and Kadugu (drink of cattle) cures itching. A mixture prepared by grinding expressed juice of Tephrosia purpurea Linn. (leaves), Kadugu and crystal salt is also indicated internally to cure the itching²⁴.

Cattle suffering from cough also suffers from anorexia and difficulty in breathing. Administering the whole plant of Andrographis paniculata Nees along with Kadugu (a drink of cattle) cures cough and dyspnoea²⁵. One Gottam (140 ml) quantity of fresh milk ground with bark of *Ficus religiosa* Linn. mitigates cough and relieves the fatigue of cattle²⁶.

As per Ayurvedic texts and modern research, the human dose of leaves powder of Abrus is 1-3 grams and cattle dose can be restricted to 5-10 grams powder or 5-10 ml juice of leaves20

Gottam is an ancient rough estimation of a liquid, measured between the two joints of a matured bamboo stick18.

cattle drink made up of rice washing water and vegetables wastages

The Telugu dialects like Tīta and Gajji indicates skin diseases with severe itching. Modern researches opine these either scabies/ Mange (mite infection) or fungal/ ring worm infection²³.

Pollution, dust, seasonal changes etc. environmental factors cause Bronchial asthma. Internal administration of the drink prepared from the mixture of *Telakapindi* ^a and milk or the paste prepared by grinding the unripe fruits of cotton and milk cures bronchial asthma²⁷. Using the ear drops prepared by the mixture of expressed juice of bark of *Albizzia lebbeck* Benth. and black pepper also cures the disease²⁸.

The cattle with high body temperature (fever), inability to lift or bear weights, quivering and deep breathing (vitiated respiration) is diagnosed as *Vagarpu* disease^{29, b}. Nasal Instillation of the mixture of *Kali* (drink of cattle) and expressed juice of leaves of *Tephrosia purpurea* Linn. or Internal administration of the mixture of *Kali*, expressed juice of flowers of *Butea monosperma* (Lam.) Kurtz., *Tilapistamu* ^c cures the disease²⁹.

In a disease called *Guvvatevulu* ^d cattle gets high irritation and makes abrupt moves and entire hair of the tail falls down³¹. Administering 140 ml of *Pulikaḍugu/ Kali* (fermented drink of cattle) mixed with paste prepared by pounding the leaves of *Aloe barbadenis* Mill., crystal salt, mustard seeds and wet ginger cures the disease ³².

A cattle suffering from *Nallatevulu* becomes black (dull coloured with matted hair) and lose their consciousness³³. Administering the paste prepared by grinding the leaves of bamboos, whole plant of *Andrographis paniculata* Nees., stems of *Cissus quadrangularis* Linn., leaves of *Adhatoda vasica* Nees., fruits of *Gmelina arborea* Linn., and mustard seeds along with *Kali* (fermented drink of cattle) cures *nallatevulu*³³. The cattle suffering from the disease *Domma* suffers from gradual distension of abdomen, shivering of the body, loose bowels and difficulty breathing. It refuses fodder and stops rumination. Its consciousness becomes blocked; nasal mucosa becomes dry and stops sweating. It is said if this disease is not timely diagnosed and treated the cattle will die immediately within a *Jāmu* (3 hours) ³⁴. Administering the mixture of powders of *Triphala* (three myrobalans *Emblica officinalis* Gaertn., *Terminalia chebula* Retz. and *Terminalia balerica* Roxb) and *Trikaţika* (three pungents viz. dry ginger, black pepper and long pepper) with tamarind's juice and providing other careful comforts relieves the disease³⁵. Administering the mixture of blood of bear, crystal salt and powder of dry ginger along with the black colored goat's urine also cures the disease³⁵. The terms *Domma* ^a and *Nallatevulu* ^b are used as synonymous.

a. Stuff that remains after the oil had been pressed from the sesamum seeds

vagarpu is a symptom denoting the fatigability. Avoiding excess work, giving rest normalizes the fatigability
of cattle.

c. stuff that remains after the oil had been pressed from the sesame seeds

d. As per the modern literature in Trypanosomiasis, a protozoan infection caused by insects and flies, cattle suffers from intense nervous excitement, moves aimlessly and frequently falls down. The dialect guvvatevulu is akin to be Trypanosomiasis 30.

A cattle suffering from the disease *Neridi* ^c refuses fodder, water and stops rumination. If it is neglected for 1 month it suffers from distension of abdomen and dies ⁴⁰. Nasal instillation of the expressed oil attained from the uniform mixture of flour of Italian millet (*Setaria italica* (L.) BEAUV), *Karidūpamu* ^d and sesame oil; along with internal administration of 140 ml of expressed juice of leaves of bamboos cures the disease⁴⁰. Paste prepared by grinding the flowers of *Butea monosperma* (LAM.) TAUB. in Cattle's drink; mixture of milk, cattle's drink and juice of bark of *Albizia lebbeck* (L.) BENTH. are also indicated in *Neridi* ⁴⁰.

Cattle become weak and fatigued by vigorous work like ploughing land or carrying goods. Administering 140 ml of buttermilk mixed with the paste prepared by grinding bark of *Kārumunaga* (*Moringa concanensis* NIMMO EX DALZ. & GIBSON ⁴¹, root bark of *Plumbago zeylanica* Linn., root of *Calotropis Procera* (Ait.) R. Br. and whole plant of *Andrographis paniculata* Nees for 7days cures weakness and makes the cattle healthy⁴². Further administering *Tilapiṣṭam* (black sesame flour) with boiled rice provides nourishment and relieves fatigue⁴². Feeding with leaves of *Murraya koenigii* SPRENG is said to cause stoutness in *Kode* (bull calf) and the same sustains and increases milk in udder of *Pevya* (heifer) ⁴³.

Cattle suffering from chronic swelling in four legs with difficult walking can be diagnosed as *Sandhivāta* (Osteoarthritis)⁴⁴. Administering the mixture of castor oil, ghee and sesamum oil along with expressed juice of leaves of *Erythrina indica* LAM and expressed juice of leaves of *Azadirachta indica* A. Juss. cures *Sandhivāta*. This treatment also enhances the strength and physique of the cattle⁴⁴. Further mixture of expressed juice of leaves of *Pergularia daemia* (Forssk.) Chiov. and fermented drink of cattle is also indicated to cure *Sandhivāta*⁴⁴.

The Cattle with quivering, glared look, stretched legs, inability to walk and refusing fodder can be diagnosed as suffering from *Bodderika* disease^{45, e}. Administering the mixture prepared by grinding together the three pungents (dry ginger, black pepper and long pepper), expressed juice of leaves of sharp angled cucumber and ghee cures the disease⁴⁶.

a. Telugu dialect Domma has two literary meanings 1. Fainting and 2. Related to chest. Based on the root meaning of related to chest, some scholars considered this as pneumonia of modern system of medicine in this text it is related to fainting. Based on severity of the diseased condition it can be considered as anthrax. Moreover Yejalla Sreerama Choudary in his experience based text anubhava paṣuvaidya cimtāmaņi clearly considered Domma as anthrax³⁷.

b. Nallatevulu is having similar fainting nature and other related features of Domma, it can also be considered as early stage of the anthrax. At present vaccination to prevent anthrax is available³⁶.

c. Neridi denotes gallbladder. Excessive intake of spoiled fodder and excess stressful work leads to inflammation of gallbladder and ultimately causes the disease.

d. black ash like substance, produced by wood smoke

e. Researches consider infections like babesiosis etc. and injuries may lead to Bodderika.

Dental caries of cattle causes difficulty in the intake of fodder. External application of the paste prepared by grinding leaves of *Nyctanthes arbor-tristis* Linn., salt, black pepper and cow milk or paste prepared by grinding the leaves of *Aristolochia bracteata* Retz., rock salt, black pepper and cow milk or the mixture of new lime and castor oil cures dental caries⁴⁷. Further external application of the ghee boiled with onion kills the worms and cures dental caries⁴⁸.

Cattle suffering with nasal granuloma, resembling a ball, are called as *Mukubanti*^a. The disease causes irritation in nostrils and obstruction for breathing. Nasal Instillation of expressed juice of tuber of *Urtica tuberosa* Box. cures the disease⁴⁹.

In India death of cattle by snake bite is common. After snakebite cattle suffers from horripilation, moos in high pitch, refuses fodder and water and finally falls down by losing consciousness. Proper identification and immediate external application of collyrium prepared by rubbing root of *Nāgamuṣiṇi* (*Strychnos colubrine* Auctt. Pl.)⁵⁰ in water is said to mitigate all evil effects by acting as an antidote to all snake bites⁵¹. In the same way administering the paste prepared by leaf powder of *Caesalpinia crista* Linn. and 10 black pepper as both collyrium and internal medication acts as an antidote of scorpion bite⁵².

Sudden and accidental exposure to fire causes burns. External application of expressed juice of leaves of *Aristolochia bracteata* Retz. or sprinkling the *Piḍaka buḍida^b* cures the burn ulcers of the cattle⁵³.

Accidental injuries to the eyes cause white opaque ulcers in the eye called as *Kamṭipuvvu*. External application of collyrium prepared by grinding expressed juice of leaves of *Coccinia indica* W. & A. and black pepper cures these corneal ulcers⁵⁴.

Due to blows and other accidents cattle suffers from watering of eyes called $\bar{A}viri^c$. Instillation of the eye drops of juice of root of *Sida cordifolia* Linn. relieves watering of eyes and headache⁵⁶. Tying cattle in the shade, timely providing water and fodder and applying *koramīņu reṭṭa* (dung or stools of Bullseye snake head fish) in the eyes, relieves watering of eyes and provides good vision⁵⁶.

a. Researches confirmed this as nasal schistosomiasis. Blood flukes live in nasal vein causes the disease. They lay the eggs in nasal veins which penetrate through nasal tissues and pass through nasal discharges. Snails are the intermediate hosts.

b. ash obtained by burning a cake used as fuel prepared from cow dung and other fine wood material

c. Researches consider aviri as opthalmia. Ophthalmia (also called ophthalmitis) is inflammation of the eye. It is a medical sign which may be indicative of various conditions, including sympathetic ophthalmia (inflammation of both eyes following trauma to one eye), gonococcal ophthalmia, trachoma or "Egyptian" ophthalmia, actinic conjunctivitis (inflammation resulting from prolonged exposure to ultraviolet rays), and others. Here in this text opthalmia due to trauma/ exposure to dust, sunrays etc. can be considered 55.

Though not a major problem, complete or partial infertility of cattle causes economic loss. Administering the mixture of fruit juice of *Citrullus vulgaris* Schrad., fresh milk of cow and goat's ghee turns the barren cattle to fertile⁵⁷. Administering the paste prepared by fine powder of the seeds of *Aḍavitumma* (*Canavalia virosa* Wight. & Am. Prod)⁵⁸ and butter for 16 days both internally and externally (as collyrium) sustains the pregnancy of *peyya* (heifer).⁵⁷

In normal conditions of the cattle, after the delivery breast milk will be initiated automatically. In some cattle, this physiological process hampers. Administering the mixture of *Cekomdāku* (leaves of *Cadaba trifoliata* Wight. & Am. Prodr../ *Cadaba indica* Lam.), ⁵⁹ cumin seeds, crystal salt along with *Pulinīlla* (sour gruel made from the fermented boiled rice) initiates the flow of breast milk in cow⁶⁰. Snuffing the mixture of leaf juice of *Cekomdi*, fresh turmeric powder and black pepper also initiates the flow of breast milk in cow⁶⁰.

Some times the primy cows (first time delivered cows) won't allow their calf to take milk. Whole body application of juice of leaves of *Komdagogu* (*Cochlospermum gossypium* DC. Prodr. / *Hibiscus furcatus* Roxb. ex. DC.)⁶¹ changes the attitude of cow and with lot of affection allows the calf to suck breast milk ⁶². Administering the mixture of powders of sugar candy, mustard seeds, rhizome of *Curculigo orchiodes* Geartn and seeds of *Mucuna pruriens* Bek also work in the same way⁶³.

Initiation of milk after delivery is called as *Cepuṭa*. If milk is not initiated, administering the mixture prepared by grinding white mustard, cumin seeds, salt, fermented cattle's drink and juice of leaves of *Cadaba indica* LAM cures the disease⁶⁴.

Unhygienic milking causes breast wounds in cows. External application of the paste prepared by grinding leaves of *Achyranthes aspera* LINN, garlic, common salt and black pepper kills the worms and cures the wounds over the udder (breast) of the cow⁶⁵.

Improper care causes diseases in calves. The calf after drinking excess milk if suffers from loose bowels and wasting that can be diagnosed as $P\bar{a}lakolanu^{6}$. Cauterizing on sides and administering the mixture of butter and turmeric and using Italian millet (*Setaria italica* Beauv.) as the fodder relieves the disease⁶⁶. Excess milk drunk by the calf if solidifies in the stomach causes wasting and this is called as $P\bar{a}ladomma$ ⁶⁷. Mixture of leaf juice of *Boerhavia diffusa* Linn. *and* root powder of *Withania somnifera* DUNAL is indicated to cure this disease⁶⁷.

Some times cattle suffer from abortion and dead fetus is not expelled out. In such conditions administering the mixture prepared by grinding the leaf juice of cotton, leaf juice of *Psoralea corylifolia* Linn., powder of bark *of Ficus glomerata* Roxb., powder of black pepper, leaf juice of watermelon along with sesame oil expels the dead fetus⁶⁸.

In normal phenomena after the delivery the placenta is expelled out automatically and rarely, it will be obstructed. Administering the mixture of soup prepared from seeds of *Vigna unguiculata* Linn., juice of fresh leaves of watermelon and flour prepared from the parched grains or corns expels the placenta. Otherwise applying the soil of anthill on the back of the hip also causes expulsion of the placenta⁶⁹.

In early labor, premature calf suffers from weakness. Protection with utmost care by avoiding open air for a month and administering butter enhances the strength. Further leaves of bamboos are also indicated⁷⁰.

As cattle cannot express their suffering, some times it is difficult to diagnose the disease. Moreover symptoms may mimic with each other. In such condition collyrium prepared by grinding seeds of *Mucuna pruriens* Bek., bark of *Syzygium cumini* Skeels., root of *Boerhavia diffusa* Linn., rhizome of *Acorus calamus* Linn., black pepper and water is indicated as a general treatment to cure all the diseases of the cattle⁷¹.

Discussion

Veterinary Āyurvedic Medicine has been enriching till the recent past of modern times. Advancement of allopathic research, and separate course on Modern Veterinary medicine, has changed the age old scenario of cattle treatment and people have been gradually attracted towards allopathic treatment of cattle. Even then, today, certain diseases of cattle are not easily treatable and some times the medicaments are costlier. Moreover many villages are far away from the facilities of allopathic treatment. The diet of cattle is mainly based on herbal fodder and the diseases aroused can also be easily treated by the herbal medicines. Change of fodder or Āyurvedic herbs mixed with fodder are more suitable to treat and prevent many such diseases which are difficultly curable by contemporary systems of medicine.

As majority of these herbs are easily available, easily cultivated and easy to store, now once again the scenario of cattle treatment is changing. There are many successful *Āyurvedic* veterinary doctors who dedicated their entire life for the benefit of animals. In India various ethno veterinary studies explored many herbal remedies for cattle and other domestic animals. But so far no classical Veterinary Ayurvedic texts on cattle treatments are unearthed. Sahadeva Paṣu āyurveda is famous in Andhra Pradesh and published in local language. The original Sanskrit text of Sahadeva is not available, exact time of the present Telugu manuscript is not known. In the text it was written that actual text was based on the text named Sahadeva Paṣu āyurveda available by that time. Though there is no concordance, by the subject of the text it doesn't seem to be written by original Sahadeva. Even then it is quiet

worthy with many simple formulations and single drugs for the treatment of cattle. It was published in Telugu with old Telugu dialectic names of diseases and drugs.

With lot of efforts and consulting various scholars majority of the diseases equivalent allopathic names are assessed. Some of the disease names like *Pālakolanu*, *Pāladomma*, etc. are not in popular usage. To identify and confirm the exact equivalent of remaining dialects in modern system of medicine, more research is needed. Further research in terms of interaction with rural people, linguistic experts and rural Veterinary doctors and comparison with other Telugu books and manuscripts reveals the exact names.

Based on Floras, books like Indian Medicinal plants, online search centre like ENVIS centre of FRLHT, the vernacular names of drugs used in the treatment were equated with relevant botanical names. The simple formulations and single drugs mentioned in this article for many important and common diseases of cattle can cater the needs of common people, traditional cattle healers and cattle men. It also paths a way for further research in Ayurvedic Veterinary Medicine.

Conclusion

This is the one and only ancient treatise on Cattle treatment available in the form of manuscript in Telugu poems. Further research and popularizing the text in Telugu and other languages enriches the knowledge of needy.

Reference:

- 1. Sharma R. D. Rakesh kumar and Sridhar. Historical background and analysis of scientific content of ancient indian literature on Practices for the treatment of diseases of domestic animals. Indian Journal of History of Science, 1987: 22(2) Pp 158-163.
- Kauţilya. Kauţilya arthasastra part-II (text with English translation with critical and explanatory notes by R.P. Kangle), 1963: Sloka: 1.4.1;
- 3. ibid. 5.3.12.
- 4. Terry Clifford. Tibetein Buddhist Medicine and psychiatry, published by Motilal Banarasidas, 1994: 40
- Anonymous. Sahadeva paşu āyurveda (Palm leaf manuscript); Andhra Sahitya Parishat Govt Museum and Research Institute (Archeological museum), Kakinada
- Anonymous. Sahadeva paśu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947
- 7. ibid. 6
- 8. Sagari R Ramdas, Nitya S Ghotge. Bank on Hooves -your companion to Holistic animal health care. ANTHRA publications. 2005: 357-58

- 9. FRLHT: ENVIS center on Medicinal plants, online search for vernacular names equivalents http://envis.frlht.org/ver_search.php
- Kirtikar. H and Basu. D. Indian Medicinal Plants Second Edition, Vol. I, Lalit Mohan Basu publications, MB.49, Leader Road, Allahabad, India; 1988: 348
- 11. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947:6-7
- 12. ibid.30
- 13. ibid.7
- 14. ibid.10
- 15. Anonymous. Online Telugu- English dictionary from Digital dictionaries http://telugu.indiandictionaries.com/meaning.php?id=2302&lang=Telugu
- 16. Gwynn J.P.L. online Telugu- English dictionary from Digital dictionaries of South asia http://dsal.uchicago.edu/dictionaries/gwynn/
- 17. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947:8-9
- 18. Sreerama choudarai Yejalla. Anubhava Pasu vaidya chintamani, Tenali, Prabhat publishing house. 1965: 148
- 19. Prasad S. Administrative recommendation in regard to up keeping, Health, and management of animals in ancient India, Indian Journal of History of Science, 1987:22(2): 136-140.
- Sharma P.V. Dravyaguna Vignan: 2nd volume, Varanasi, Chowkhamba Bharati Academy publication, 2006: 772
- 21. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947:11
- 22. Ibid. 9
- 23. Sagari R Ramdas, Nitya S Ghotge. Bank on Hooves -your companion to Holistic animal health care. ANTHRA publications. 2005:467
- Anonymous. Sahadeva paşu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947:13
- 25. Ibid. 14
- 26. Ibid.20
- 27. Ibid. 39-40
- 28. Ibid. 40
- 29. Ibid. 41

- 30. Sagari R Ramdas, Nitya S Ghotge. Bank on Hooves -your companion to Holistic animal health care. ANTHRA publications. 2005:395
- 31. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947: 14
- 32. Ibid. 10
- 33. Ibid. 24
- 34. Ibid. 22
- 35. Ibid. 22-23
- 36. Sagari R Ramdas, Nitya S Ghotge. Bank on Hooves -your companion to Holistic animal health care. ANTHRA publications. 2005: 349
- 37. Sreerama choudarai Yejalla. Anubhava Pasu vaidya chintamani, Tenali, Prabhat publishing house. 1965: 314-319
- 38. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947: 26-27
- Sreerama choudarai Yejalla. Anubhava Pasu vaidya chintamani, Tenali, Prabhat publishing house. 1945: 345
- 40. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947: 26-27
- 41. FRLHT: ENVIS center on Medicinal plants, online search for vernacular names equivalents http://envis.frlht.org/ver_search.php
- 42. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry;1947: 20-21
- 43. Ibid. 16
- 44. Ibid. 42-43
- 45. Ibid. 36-37
- 46. Ibid. 37
- 47. Ibid. 34
- 48. Ibid. 34-35
- 49. Ibid. 39
- 50. FRLHT: ENVIS center on Medicinal plants, online search for vernacular names equivalents http://envis.frlht.org/ver_search.php
- 51. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947: 29
- 52. Ibid. 20

- 53. Ibid. 44
- 54. Ibid. 26
- 55. Wikipedia. On line information on various terms http://en.wikipedia.org/wiki/ Ophthalmia
- 56. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947: 25
- 57. Ibid. 16
- 58. Kirtikar. H and Basu. D. Indian Medicinal Plants Second Edition, Vol. I, Lalit Mohan Basu publications, MB.49, Leader Road, Allahabad, India; 1988: 789
- 59. FRLHT: ENVIS center on Medicinal plants, online search for vernacular names equivalents http://envis.frlht.org/ver_search.php
- 60. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947: 17
- 61. Kirtikar. H and Basu. D. Indian Medicinal Plants Second Edition, Vol. I, Lalit Mohan Basu publications, MB.49, Leader Road, Allahabad, India; 1988: 214
- 62. Anonymous. Sahadeva paṣu āyurveda(text with translation in Telugu prose, S. Appalaswamy and sons publication, Rajamandhry; 1947: 20-21
- 63. Ibid. 32
- 64. Ibid. 17
- 65. Ibid. 36
- 66. Ibid. 30-31
- 67. Ibid. 30
- 68. Ibid. 15
- 69. Ibid. 39
- 70. Ibid. 27-28
- 71. Ibid. 45

सारांश

पशुओं की आयुर्वेद चिकित्सा (पशु-आयुर्वेद) – सहदेव पशु आयुर्वेद की भूमिका

गोलि पेंचल प्रसाद एवं अला नारायण

प्राचीन भारतीय विज्ञान में आयुर्वेद की भूमिका महत्त्वपूर्ण है। संहिताकाल में आयुर्वेद अष्टांगायुर्वेद के रूप में प्रचलित था। प्राचीन काल से अष्टांगायुर्वेद के साथ-साथ वृक्षायुर्वेद, पशु आयुर्वेद, अश्वायुर्वेद, गजायुर्वेद के रूप में भी आयुर्वेद विराजमान था। पुरातत्वशास्त्रज्ञों के अनुसार भारत में ६००० से ४५०० बी.सी. के बीच से ही पशुपालन की विधि जारी थी। हरप्पा मोहेन्जुदारो नागरिकता के अनुसार पशुपालन को सबसे अधिक महत्त्व दिया जाता था। पशुसम्पत्ति को सबसे अमुल्य सम्पत्ति माना जाता था। वेद में गाय की कामधेन के रूप में पूजा होती थी। अथर्ववेद में पशओं के रोग एवं निवारण औषधियों का उल्लेख है। प्राचीन काल में ञालिहोत्रमहामृनि और नकुल को अश्वचिकित्सा में, सहदेव को पशुचिकित्सा में, पालकाप्य को गजचिकित्सा में श्रेष्ठ माना जाता था। शालिहोत्र एवं नकुल ने अश्वचिकित्सा में, सहदेव ने पश्चिकित्सा में, पालकाप्य ने गजचिकित्सा में संस्कृत में प्रसिद्ध ग्रन्थ लिखे थे। सहदेव का संस्कृत पशुवैद्य ग्रन्थ आज उपलब्ध नहीं है। नरनार्य के तेलुगु पद्य में मिलने वाले सहदेव पर्गु आयुर्वेद ग्रन्थ में अनेक पर्गु व्याधियों का सुलभ उपाय बताया गया है। लेखक के अनुसार यह ग्रन्थ सहदेव के पशु आयुर्वेद ग्रन्थ के आधार पर लिखा गया। यह ग्रन्थ तालपत्र के रूप में उपलब्ध है। इस ग्रन्थ की उपयोगिता के कारण तेलुगु भाषा में अनेक पर्याय मुद्रित हुए। इस पत्र में ग्रन्थ में उल्लिखित रोगों के तुलनात्मक अल्लोपति नाम, औषधियों के तुलनात्मक शास्त्रीय नामों के उल्लेख के साथ-साथ इस ग्रन्थ का एवं आयुर्वेद पश्चिकित्सा का महत्त्व बताया गया।