

Review Article (Siddha Medicine)

Present Status of Traditional Healing with Animals and Animal Products in Siddha Medicine – A Literature Review

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Abstract

Siddha Medicine is one of the age-old practice of Indian medicine in the world, has played an essential role in human health care services from its inception. Since time immemorial extensive use of animals and their parts are being made used for therapeutic purposes. The objective of the study is to find out the number of animals from the *Kingdom Animalia* and their uses in Siddha Medicine which are mentioned in the Siddha Texts. The literatures was obtained from the Unit of Siddha Medicine, University of Jaffna were analyzed on the topic. Approximately 128 animals were found under the classification of *Kingdom Animalia*. Out of 8 main Phylum, 6 were most probably used by Siddha practitioners. They are as, Phylum *Porifera*(1%), *Cnidaria*(1%), *Annelida*(2%), *Mollusca*(6%), *Chordata*(77%), and *Arthropoda*(13%). Among these Phyla, *Chordata* acquires highest values in utilization especially the *Class Mammalia*. Different animals or animal parts used in medicaments and they contain certain chemical constituents. Yet they implicated in medicinal purposes, even by the modern medical sciences. They have various actions on the human body systems acting most on the digestive system, especially with Demulcent action. They act on other systems too. In this century the traditional knowledge is fast eroding due to modernization. The bottom line of the study is that there is an urgent need to make such a study in the field of zoology and conduct further researches appropriately which will render a great base for animal usage as medicine in the field of Siddha system.

Keywords: *Animals, Siddha Medicine, Therapeutics, Health Care, Phylum Chordata*

Introduction

In Siddha Medicine, apart from herbs and minerals animal products are used as medicine, for example in mental diseases, *Peranda Bhasmam* is used and it is a powder made of human skull bones and the skulls of dogs. ref So, The healing of human ailments by using therapeutics that are obtained from animals or ultimately are derived from them is known as zootherapy.¹

A lot of efforts in Siddha system of medicine have gone into documentation, use, identification and validation of plant based traditional medicines, but studies on most of the animal-based medicines are sporadic, despite the fact that traditionally many animal-based drugs are administered all over the world. Animal-based medicines have been elaborated from parts of the animal body, from products of its metabolism (corporal secretions and excrements), or from non-animal materials (nests and cocoons)¹⁻³. These are used either singly or in compound formulations and prepared in a variety of forms i.e.: powder, ash, decoctions, syrup, ointments, liniments, etc.¹⁻³

Indeed, animals are therapeutic arsenals that have been playing significant roles in the healing processes, magic rituals, and religious practices of people from many parts of the world.¹

Since times immemorial, it's found that people still use various animal products and by-products for the cure of various diseases. For example, honey is used as

expectorant, cattle urine and milk has been used as a therapeutic.³ The studies on the therapeutic uses of animals and their parts have been neglected, when compared to plants. Thus, there is an urgent need to make such study in the field of Zootherapy and conducting further researches will render a great base for animal sciences in the field of Traditional Medicine, so that it can be put to the welfare of human kind.

The main objective of the study is to find out the number of animals from the animal kingdom and their uses in various aspects of therapeutics which are mentioned in classical texts of Siddha Medicine. Further to identify the number of animals in total amount and classifying them according to characters regarding biodiversity and identifying the parts used in medicinal ailments and specifying as live or dead. The study is also regarding identifying the chemical constituents of animal parts and the use of animal origins in the systems of human body and the dominating actions in each system.

Methodology

The literatures in Siddha Medicine (as Indian *Materia Medica* vol- II), and for further *Gunapadam Thathujeeva Vaguppu* were analyzed on the use of Animal Kingdom⁴ and their therapeutic values. These texts were obtained from the library, Unit of Siddha Medicine, University of Jaffna and Reference, Historical Section of Public Library, Jaffna to complete the study.

According to the collected data, the total number of animals were classified taxonomically, type of animal/ animal parts used for medicinal purposes, the form of usage, list of chemical constituents, use of products in medical ailments, effect of animals on human body systems and actions used most in each system.

Observations

Approximately 128 animals were found according to the data collected. Their classification under *Kingdom Animalia* is shown in table.1. Out of 8 main phylum of the *Kingdom Animalia*, 6 were most probably used by the folks and Siddha practitioners. They are as, *Phylum Porifera*, *Coelenterata*, *Annelida*, *Mollusca*, *Chordata* and *Arthropoda*. Among these phylum, *Chordata* acquires highest values in utilizations specially the *Class Mammalia*. Even the *Phylum Porifera* is an oldest classification of *Animalia* and the low kind of variety, it is also used in the medicinal preparations(chart.1).²⁻⁷

The type of animal / animal parts used, is shown in Table.2. According to the literatures, much used animal / animal parts are raw materials.²⁻⁷ The rest is considered as fresh parts including the flesh of animals vastly. One live medically used animal is *Hirudo Medicinalis*³⁻⁴ (medicinal leeches) (chart.2/ fig.1).

Different chemical constituents present in animal parts were categorized into two as whether they present in secretions (like fat/lard, castorenm, wax) or solid materials (including hard particles like shells, horns etc). Each chemical constituents represent, no of animal given in the third column(i.e. Ambrein -1, Balsamic Acid -1, Calcium Carbonate -3).⁷

As per to the literatures, products derived from animals are shown in Chart.3. The most commonly used form of medicines shows powders like *Choornam*, *Bhashmam* etc. and the next mostly used form was medicated oils. The other form included ointments, pills, plaster, suppositories etc. in less amounts.^{3, 5-7}

In Siddha Medicine, animal derivatives have been used in diseases of various human body systems. According to the data, there isn't any animal products observed in curing diseases of lymphatic and endocrine systems. The systematic declining order of animal usage is as, digestive, cardiac, nervous, integumentary etc. Even though other animals represent certain amount, it is noticed that medical derivatives of *Phylum chordata* denotes the highest values in digestive system.^{2,4,7}

Use of animal based therapeutics in human body systems were selected and studied under actions on each. Accordingly, demulcent in digestive system, cardiac stimulant in cardiac system, nervine tonic in nervous system, nutrient in muscular system are the actions seen by usage of animal products (Charts 5, 6,7,8).

Table. 1: Total number of animals and their taxonomical classifications

Kingdom Animalia	Number	Total Number
Phylum Porifera	1	1
Phylum Coelenterata/ Cnidaria		1
1. Class Anthozoa	1	
Phylum Annelida		3
1. Class Oligochaeta	1	
2. Class Hirudinae	2	
Phylum Mollusca		8
1. Class Gastropoda	4	
2. Class Bivalvia	3	
3. Class Cephalopoda	1	
Phylum Chordata		99
1. Class Chondrichthyes	2	
2. Class Osteichthyes	23	
3. Class Amphibia	2	
4. Class Reptilia	12	
5. Class Aves	27	
6. Class Mammalia	33	
Phylum Arthropoda		16
1. Class Crustaceae	2	
2. Class Insecta		
1. Order Hymenoptera	6	
2. Order Hemiptera	2	
3. Order Lepidoptera	1	
4. Order Coleoptera	5	
Total Numbers	128	128

Chart.1: Percentile value of animals comprising each phylum

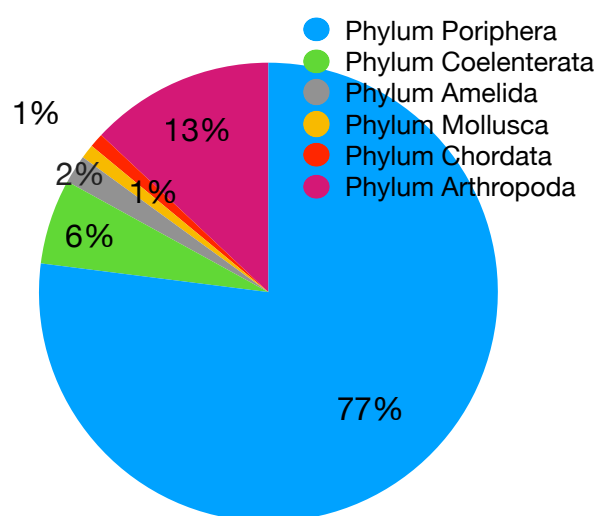


Table.2: Type of animal/animal parts used for medicinal purposes

Parts Used	Numbers
Flesh	39
Insects	13
Feathers, Bones, Bile,Urine	10
Hoofs	9
Horns	8
Lactus, Teeth	7
Egg Shell, Shells	6
Oil	5
Dung , Lard/Fat, Excretions, Venom	4
Cera	3
Excreta, Egg	2
Musk , Nest, Shellac, Mel, Slough, Blood, Worm, Ising Glass, Ash, Pearl, Skeleton Lump- Porous	1

Figure.1: Utility of *Hirudo Medicinalis*



Chart.2: State of Animal parts used in Siddha Medicine

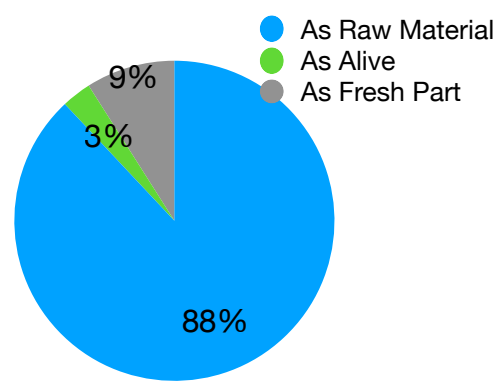


Table.3: Chemical constituents found in Animal origins.

Chemical Constituents from secretions and lard	Chemical Constituents from hard particles (Shells)	Present Number
Ambrein, Balsamic Acid, Bromine Crystal, Castorin, Carmin, Carminic Acid, Coccarine, Codliver, Extractive Matter, Liquid Fat /Fatty Acid, Myricin Myretin, Oleic Acid, Palmitin, Salt Sulphur, Valerianic Acid, Levulose Formic Acid, Proteiods, Stearic Acid Iodine	Calcium Phosphate, Animal Organic Matter, Carbonate of Lime, Magnesium Carbonate Phosphate, Fluoride, Magnesium Phosphate, Manganese, Sodium Chloride, Calcium, Magnesium Alum, Carbonate, Oxide of	1
Albumen, Ammonia, Cholesterine Gelatin, Margarina, Olein, Stearin Wax	Oxide of Iron, Phosphate, Sulphate Silica	2
Fat , Volatile Oil, Resin	Calcium Carbonate	3
Ash		4

Discussion

It is widely accepted that plants, animals and their by-products used as a source of folk or traditional medicines indicate the presence of a biologically active constituents in them^[3]. This is proved by the analysis made according to the literatures of Siddha Medicine. More than 100

animals or animal parts used with the perspectives of live or non-live material. The literatures say that how these are used as therapeutics like *Bhashmam*, *Senthooram*, *Choornam*, *Mathirai* etc.

Table .4: Products derived from Animal origins for Medical and domestic purposes

Group 1	Medicated Powders
Group 2	Medicated Oils
Group 3	Ointments
Group 4	Pills Plaster
Group 5	Perfumes Cosmetic
Group 6	Tooth Powder
Group 7	Suppositories, Pessaries Lozengers, Vaccine, Soap Soaking Powder, Pastes Hair Lotion /Hair Oil, Liniment Oriental / Incense

Chart.3: Effect of Kingdom Animalia on Human Body Systems

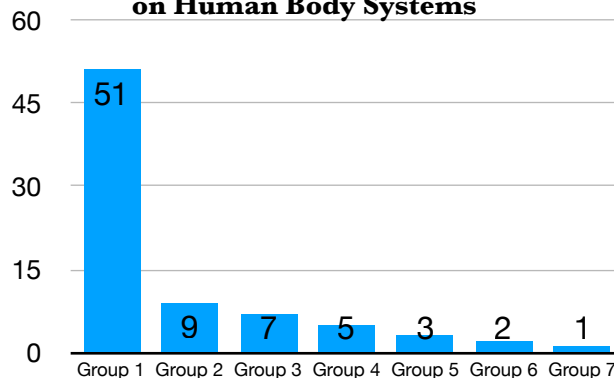
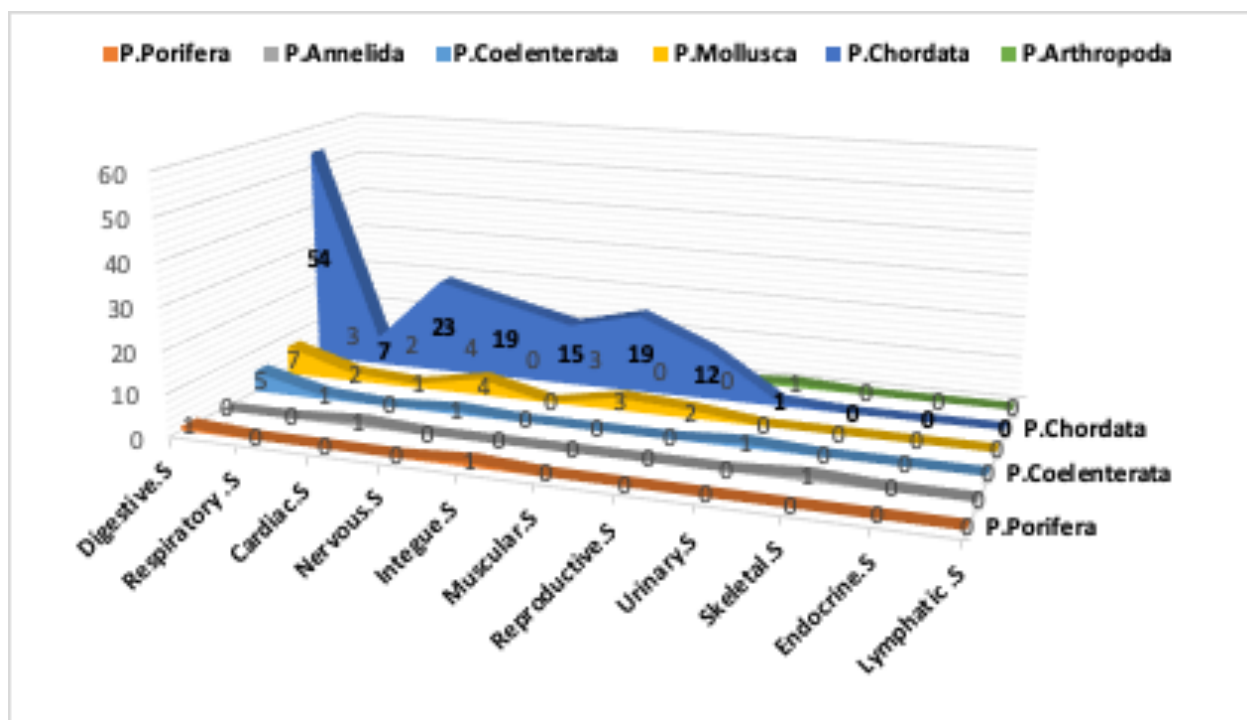


Chart. 4: Human Systemic Effect of Kingdom Animalia



Different parts of animals or animals alone utilized to treat patients such as hoofs , horns, shells, secretions etc. In relevantly these parts of animals contain certain chemical constituents. Yet they have some specification in preparing medicinal instruments and materials even by the modern medical sciences starting from medicated oils to ointments, suppositories, lozenges etc. In deeper, these animal related products have effect on various

human body systems acting in the ways of the chemical constituents they possess and concurring with the pharmacological actions. Relevant to the data, most animals frequently used in digestive system with the action of demulcent and the next prioritized one is cardiac system with action of cardiac stimulant. E.g. *Mankombu Bhashmam* – *Bhashmam* made of deer horns used in *Marbu Vazhi* (Angina Pectoris) and *Sangu Bhashmam- Bhashmam*

Chart.5: Actions of Digestive System

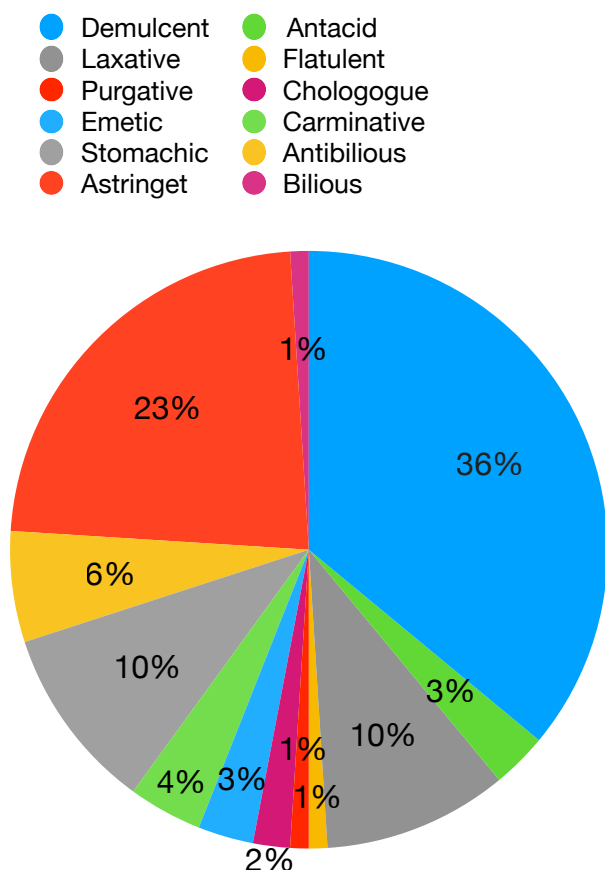


Chart.7: Actions of Nervous System

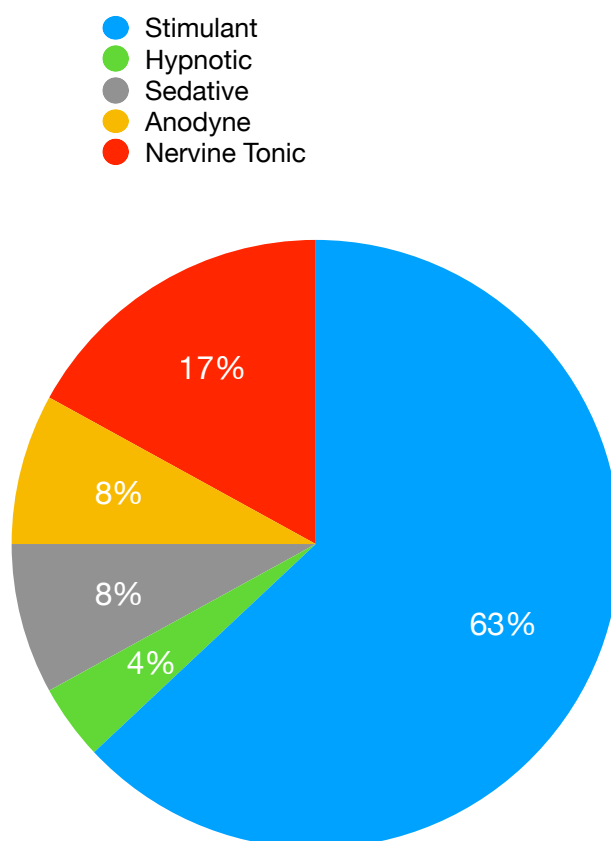


Chart.6: Actions of Cardiac System

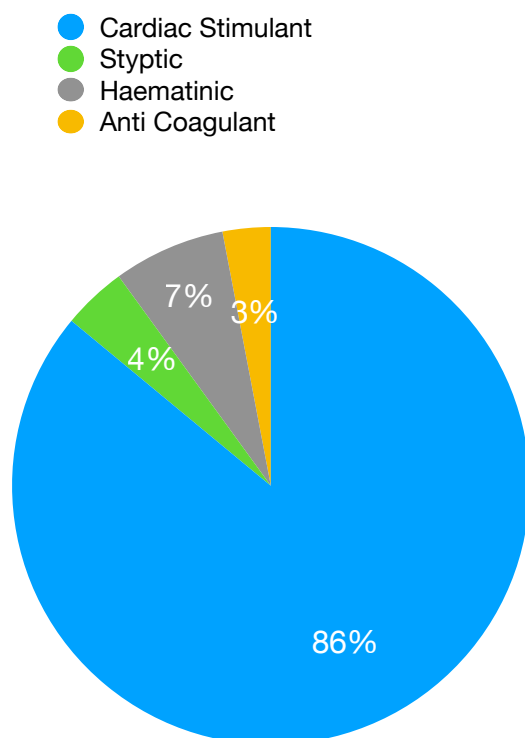
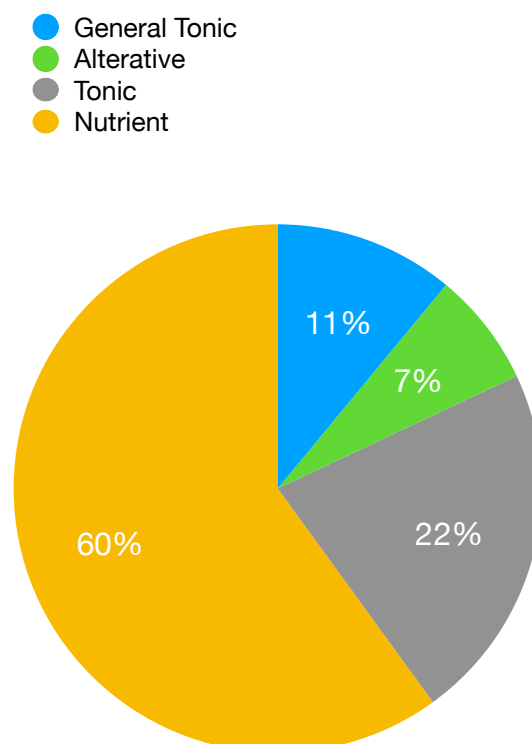


Chart.8: Actions of Nervous System



made of conch shells used in *Gunmam* (Ulcers of the stomach).³

As a whole, *Chordates* make large part of the bio diversity, here too they have impact by receiving higher percentiles specially the *Class Mammalia*.

Animal based remedies have constituted part of the inventory of medicinal substances used in various cultures since ancient times, and there is growing recognition that people in different parts of the world still use them as primary or complementary medicine. Studies on animal derivatives in traditional medicine is far more less, when compared to phytopharmacology of plants. In future, there is a need to evaluate and conduct researches on animal sources because they possess *so many biochemical constituents that have medical values*. Therefore the animal studies should not be neglected for a sustainable *medical system*.

Conclusion

According to the study, 128 animals were stated to be used in Siddha Medicine system covering nearly 15-20 percent of Siddha Pharmacopoeia in the preparation of various therapeutics. Among the taxonomical classification made, the use of chordates specially mammals have a great place in treating patients acting on various systems.

The understanding and usage of animal derived substances has been very comprehensive. Therefore research of this subject is necessary to revive traditional use of animal kingdom and Siddha Medical system that have plenty of information on fauna.

Suggestions

There is a need to expand the knowledge base related to the global utilization of animals in traditional medical systems by bringing together the results of research conducted in different parts of the world, by covering a wide range of animal taxa used traditional medicines and by providing a compilation of current articles discussing key issues on the use of animal products. This could be achieved by joint researches with experts in the fields of ecology, linguistics, sociology, anthropology, etc.

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Source of Support: None declared

Conflict of Interest: None declared

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2015-2020

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