PAŚU ĀYURVĒDA (VETERINARY MEDICINE) IN GARUDAPURĀNA

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ABSTRACT

The history of veterinary medicine is closely tied to the development of human medicine. Evidence of animal medicine has been found in ancient civilizations, such as those of the Hindu, Babylonians, Hebrews, Arabs, Greeks, and Romans. Ancient Indian literature in the form of the holy Vēda, Purāṇa, Brāhmaṇa, epics, etc. is flooded with information on animal care. The Purāṇa are ancient scriptures discuss varied topics like devotion to God and his various aspects, traditional sciences like Āyurvēda, Jyōtiṣa (Astrology), cosmology, concepts like dharma, karma, reincarnation and many others. The treatment of animal diseases using Ayurvedic medicine has been mentioned in Garuḍapurāṇa, Agnipurāṇa, Atri-saṃhitā, Matsyapurāṇa and many other texts. The Garuḍapurāṇa is one of the important Sāttvika purāṇa, the subject matter is divided into two parts, viz. Pūrvakhaṇḍa (first part) and an Uttarakhaṇḍa (subsequent part). Gavāyurvēda, Gajāyurvēda narrated briefly and Aśvāyurvēda described detailly in Pūrvakhanda.

Introduction

The history of veterinary medicine is closely tied to the development of human medicine. Rudimentary medical skills are thought to have existed as early as 9000 BC among Middle Eastern shepherd cultures. These skills developed further by Egyptians from about 4000 to 300 BC. Archaeologists have discovered papyrus fragments from an Egyptian medical textbook of 1850 BC that described diseases of cattle, dogs, birds, and fish. The papyrus show that ancient Egyptians understood veterinary anatomy, recognized signs indicating certain diseases and practiced specific methods of treatment. Evidence of animal medicine has also been found in other ancient civilizations, such as those of the *Hindu*, Babylonians, Hebrews, Arabs, Greeks, and Romans.

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Ancient Indian literature such as holy *Vēda, Purāṇa, Brāhmaṇa,* epics etc. contain abundant information on health care of animals. References of physicians also been mentioned who were specialized in the healthcare of all animals and also specialized in specific class of animals. *Śalihōtra*, who is considered the father of Indian veterinary sciences, was one among them. He is also the well-known veterinarian of the world.

The treatment of animal diseases in ancient India was well-developed and carried out with great care and precision by well-trained personnel. The treatment of animal diseases using Ayurvedic medicine has been mentioned in *Agnipurāṇa*, *Atri-saṃhitā*, *Matsyapurāṇa* and many other texts.

India with its ecological and climatic diversities is perhaps the richest nation with herbal medicinal wealth. $\bar{A}yurv\bar{e}da$, the oldest existing medical science of India, with its generous and veritable material medica, fulfills the mission of serving the ailing population through the ways of nature since time immemorial. Although research on medical science has opened new sources of remedies, $\bar{A}yurv\bar{e}da$ is continuing as a mainstay in the treatment due to its easy availability coupled with safe, effective and sustainable claims. $\bar{A}yurv\bar{e}da$ is not only responsible for the health of human beings but also plays an important role in Veterinary sciences. Since antiquity, different braches of $\bar{A}yurv\bar{e}da$, like

- 1. Vrksāyurvēda Deals with Vrksa (Plants)
- 2. Hastyāyurvēda/ Gajāyurvēda Deals with Hasti/Gaja (Elephants)
- 3. Aśva/Hayāyurvēda Deals with Aśva/Haya (Horses)
- 4. Gavāyurvēda Deals with Gava (Cows) etc

The *Purāṇa* are ancient scriptures, discuss varied topics like devotion to God in his various aspects, traditional sciences like *Āyurvēda*, *Jyotiṣa* (Astrology), cosmology, concepts like *dharma* (right way of living), *karma* (deed), reincarnation and many others. Sage *Vyāsa* is credited with compilation of *Purāṇa*. One of the main objectives of the *Purāṇa* was to make available the essence of the *Vēda* to the common man, and the *Vēda* were basically meant for the scholars but not for the ordinary man. The *Purāṇa* are perhaps the most important or commonly used scriptural texts for the mankind specifically in India. They were guidebooks for the whole life and society.

Purāṇa usually refer to the Mahāpurāṇa. There are also smaller Purāṇa known as

Upapurāṇa. There are eighteen (aṣṭādaśa) main Purāṇa, which were know as Mahāpurāṇa and equal number of secondary works of the Purāṇa, known as Upapurāṇa. The Mahāpurāṇa are¹

The above list is from the *Bhāgavatapurāṇa*, and corresponds to the list given in the *Viṣṇupurāṇa*. Sometimes, the *Vāyupurāṇa* is substituted for the *Agnipurāṇa* or the *Śivapurāṇa*. *Narasiṃhapurāṇa* sometimes replaces the *Brahmāṇḍapurāṇa* in this list.

Bhāgavatapurāṇa is the highest of all Purāṇa. The Viṣṇupurāṇa comes next, then comes Garuḍapurāṇa. These three are principal Purāṇa in the Kali age.

Introduction to Garudapurāna

The Garuḍapurāṇa is a Sāttvika Purāṇa which contains approximately nineteen thousand ślōka. It is a medium-sized Purāṇa, divided into two parts, viz. Pūrvakhaṇḍa (first part) and Uttarakhaṇḍa (subsequent part). Each khaṇḍa has several chapters (adhyāya). The Pūrvakhaṇḍa that is called as Ācārakhaṇḍa deals mainly with karma and it is much lengthy, containing 240 chapters. There is a brief note on creation, but greater part of the Khaṇḍa occupied with the description of vratas or religious observances, sacred places dedicated to the Sun, Śiva, Viṣṇu. Besides, it also contains treatises on astrology, palmistry, politics, Sāṅkhya, Yōga, anatomy, precious stones and still more extensive on medicine-Āyurvēda.

The *Uttarakhaṇḍa* consists of two *khaṇḍa* viz. *Dharmakhaṇḍa* and *Brahmakhaṇḍa*. The *Dharmakhaṇḍa* also known as *Prēta-kalpa* (obsequial rites) which deals with *dharma*, contains 42 chapters and described the rites to be performed at the time of death, funeral

rites, ancestor worship and special funerals rites for the *Satī*. There are legends of the *Prēta* (sprits), describing the causes of their wretched existence which recall the Buddhist legends recorded in *Pētavaṭṭthu*. The *Prēta-kalpa* portion of the *Garuḍapurāṇa* is generally recited during the period of mourning. And the *Brahmakhaṇḍa* deals with the *Mōkṣa* (Liberation), which leads to salvation. It consists of 29 chapters and this section contains a dialogue between Lord *Kṛṣṇa* and *Garuḍa* on supremacy of *Viṣṇu*, the nature and forms of Gods, descrptions of *Vēṇkaṭēśvara* shrine at Tirupathi and other *Tīrtha*.²

Animal health care

Before the advent of modern allopathic system of medicine, it seems possible that the healing art was almost the same throughout the world including India. This system of medicine has given the term ethno-medicine (when implied to human treatment) and ethno-veterinary medicine (in the context of animal treatment). In India, ethno-veterinary practices were in vogue since time immemorial. In ancient India, the Vedic literature, particularly *Atharvavēda* is a repository of traditional medicine including prescriptions for treatment of animal diseases.

Cow's health care

Cows were regarded as wealth and were the backbone of the economy of ancient Indians, i.e., Aryans. Wars were fought for acquiring cows. Cattle were one of the most frequently used animals described in *Vēda*. Cows were regarded as mother (*Gōmātā*) and referred to as *Aghaṇya*. 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 (*Rgvēda* 6.28.1, 6). It is believed that the religious priests, who had the responsibility of maintaining cattle, were the first animal healers or veterinarians. A number of Vedic hymns indicate medicinal values of the herbs and it is likely that these priests were also apt to it and used their medical knowledge to keep the sacred cattle free from ailments.

In later Vedic period, which includes the two epics, i.e., *Mahābhārata* (c.1400 BC) and *Rāmāyaṇa* (c. 2000 BC), which depict the religious, social, political, and economic life of the Aryans during post-Vedic period. In the epic *Mahābhārata*, references have been made to many domestic animals including cattle, sheep, goats, dogs, elephants and

horses and their uses. Cow dung was used as manure. $R\bar{a}m\bar{a}yana$ is the oldest literature of Sanskrit, because no written history is available of that period. The treatments of various ailments using medicinal herbs were used widely to cure ailments of men and animals. The $Pur\bar{a}na$ were written to popularize the $V\bar{c}da$ and they contain the essence of the $V\bar{c}da$. The aim of the $Pur\bar{a}na$ is to impress on the minds of the masses and they are not for the Scholars, but for the ordinary people who could not study the $V\bar{c}da$. Even to this day, the $Pur\bar{a}na$ are popular. The knowledge of treating animal diseases using medicinal plants was documented not only in $V\bar{c}da$ but also in later Scriptures such as $Skandapur\bar{a}na$, $D\bar{c}v\bar{c}pur\bar{a}na$, $Matsyapur\bar{a}na$, $Agnipur\bar{a}na$, $Garudapur\bar{a}na$, $Lingapur\bar{a}na$.

Āyurvēda is not only deals with the Health of Human beings but also Health of Animals and Plants. The medical science that deals with Animals is known as Veterinary science. Before the advent of modern Veterinary science, the ethno-veterinary practices were in vogue since time immemorial. Animals received good medical care in ancient India. Physicians treating human beings were also trained in the care of animals. Indian medical treatises like *Caraka Saṃhitā*, *Suśṛuta Saṃhitā* and *Hārīta Saṃhitā* contain chapters or references about care of diseased as well as healthy animals.

Gōcikitsā (the treatment of cows) in Garuḍapurāṇa

In Garuḍapurāṇa's Ācārakhaṇḍa the chapter entitled "Nānauṣadha prayōga nirūpaṇam" deals about Gōcikitsa (the Treatment of Cows) in brief, it is the discussion between Hari and Hara. The subject matter is described in 8 verses. But the 7th and 8th verses are pertaining to the treatment of horses also. Treatment mentioned in Garuḍapurāṇa for the disorders pertains to Cows, buffalos etc, as follows

In the beginning it discussed the disorder of Cow which is not fond of her calf. For the management of this condition the prescription advised is- "Her own milk mixed with *Lavaṇa* (rock salt)". After wards described the management of few diseases and disorders.

The details are

The management of Kṛmijāla (Micro & Macro germs) in cows and buffaloes

If the cows or buffalo are affected by germs, the bits of dog's bones should be tied around the neck of the animal, with this the germs from their bodies will be shed off.

Treatment of Gōjanganābhi patah (cast off horn)

The *Guñjā* (Abrus precatorius) roots should be administered internally to bring about the castings of horns in horned cattle.

Treatment for *Kṛmijāla* (Micro & Macro germs) in *Catuṣpāda* (quadruped), *Dvipāda* (biped)

When the *Catuṣpāda* (quadruped), *Dvipāda* (biped) animals are affected by germs, the *Svarasa* (juice) of *Varuṇa-phala* (Creteva nurvala fruit) should be applied externally for shedding the germs.

Vrana (wounds) Cikitsā

For healing of the *Vraṇa* (wounds) in the wounded animals, external application of *Jaya* (Premna integrifolia) advised.

Gōmahişa (cows or buffaloes) Upasarga Cikitsā (treatment of bodily ailments)

If the *Gōmahiṣa* (cows or buffaloes) are suffering from *Upasarga* (bodily ailments), the urine of an elephant is advised for internal use.

Gōpuṁsaśca hitam (for the beneficent of bullock)

The bullocks play important role in fieldwork, hence to keep up the general condition, $Mas\bar{u}ra$ (lentil) and $S\bar{a}li$ (rice) pounded and mixed in the milk of a cow or a buffalo is advised internally. This formulation is useful in maintaining the strength of bullocks also.

Treatment of Vāri-sphōṭam (bulbous eruption) in Haya and Kēśara (horses and bullocks)

When *Haya* and *Kēśara* (horses and bullocks) are suffering from *Vāri-sphōṭam* (bulbous eruption) the leaves of *Śarapuńkha* (Tephrosia purpurea) with *lavaṇa* (rock salt) is advised.

Turanga, Kēśara Kandu cikitsā (treatment of itches in horses and bullocks)

If the *Turanga* and *Kēśara* affected by *Kaṇḍu* (itching), *Ghṛṭakumārī* (Aloe vera) leaves with *Lavaṇa* (rock salt) advised.

These are the few treatments mentioned in *Garuḍapurāṇa* for the disorders of Cows and other animals.^{2, 3, 4, 5}

Horse's health care

In ancient days Indians used the horses for rapid transportation, riding, chariot, war, race, and even in agriculture activities like plowing etc. The horses were frequently mentioned in the Vedic age (1500-1000 BC). In the later Vedic period (1000-600 BC), Buddhist period (600 BC), and Mauryan period (400 BC), the use of horses was well documented. During the Mauryan period (322-232 BC), the husbandry of horses made tremendous progress and these were used for riding and for war. The royal horses were under the charge of a superintendent of horses (*Aśva adhyakṣa*), who used to register the breed, age, color, and place of origin. Detailed accounts of housing and feeding of horses were mentioned in *Arthaśāstra*. Veterinary doctors and horse trainers were assigned free endowment. In the Gupta dynasty (300-550 AD), horses were given more importance than elephants in Samudragupta's army because of their speed and easy maneuverability.

Haya/Aśva Āyurvēda (Medical treatment of horses) in Garudapurāna

The treatment pertains to horses was described in detail in *Garuḍapurāṇa Ācārakhaṇḍa* the chapter entitled *Gajāśvāyurvēda*. The name of the chapter indicting that, here the treatment pertains to *Gaja* (Elephant) and *Aśva* (horse) were discussed. *Dhanvantari* narrates the subject matter and the numbers of verses are 39, out of which 32 are pertains to *Aśva* (horse) and the remaining seven verses are about *Gajāyurvēda* (medical treatment of elephants). The chapter begins as - Now I am going to explain in detail the *Āyurvēda* of horses, which deals with the diseases of horses, and the means of keeping them in sound health etc. In the beginning described the *Haya Sarvārthalakṣaṇa* (the features of healthy and fit Horse).

Sarvārthalakṣaṇa of Haya (the features of healthy and fit Horse)

There are many types of horses but the horse, which does not possess the following features, is considered as healthy and fit one. Such type of horses only useful riding, wars and other purposes. The features are

- 1. Kākatundī (crow-lipped),
- 2. Kṛṣṇajihvā (black-tongued),
- 3. Rksaya (bear-faced),
- 4. Usnatāluka (hot-palated),

- 5. Karāla (fierce looking)
- 6. Hīnadanta (Deficient or lacking in teeth),
- 7. *Śrngī*, (horned),
- 8. Virāladantaka (few-toothed),
- 9. Ēkānda (single-testicled),
- 10. Jātāndakañcuka (Born with Scrotal tumour),
- 11. Dvikhurī (cleft hoofed),
- 12. Stani (Teated),
- 13. Mārjārapāda (cat-footed),
- 14. Vyāghrābha (resembling tigers),
- 15. Kusthavidradhisannibha (appearing as if affected by Kustha and tumours),
- 16. Yamaja (Twin-born),
- 17. Vāmana (diminutive in size),
- 18. Mārjāralōcana (cat-eyed) and
- 19. Kapilōcana (monkey-eyed).

The healthy and fit horses are classified into three types based on their features. They are

- 1. *Uttama Aśva* (the best horse): The horses, which are *Turuṣkaja* i.e., Turkish considered as the best.
- 2. *Madhyama Aśva* (best horses): The horses, which are five *Hasta* (cubits) in height considered as best.
- 3. Kanīyama Aśva (average horse): The horses, which are three Hasta (cubits) in height is considered as average.

In general the horses which are having *Dīrghapāda* (long-limbed), *Hrasvakarņa* (Short ears) and *Mūṣika varṇa* (mouse-coloured) will live long and best ones. For the *Rakṣā* (protection) of the horses from diseases and evil sprits, in *Garuḍapurāṇa* the following rites are mentioned.

The Aśva Rakṣaṇa (protection) rites

For the *Rakṣā* (protection) *Rēvant pūjā*, (worship of God *Rēvanta*) *hōma* (sacrificial offerings) and *Dvija Bhōjana* (feeding of brahmins) should perform in favor of the horse.

And a compound of made up of following drugs

1. Saraļa (Pinus longifolia)

5. Tila(Gingelli)

2. *Nimbapatra* (Neem leaves)

6. Vacā (Sweet flag)

3. *Guggulu* (Commiphora mukul)

7. Hingu (Asfoetida)

4. Sarsapa (Mustard)

8. *Ghṛta* (Ghee)

should be tied round the neck of the horse.

When the horses using for riding, wars etc, there is a possibility of causing ulcer/wound naturally or by the weapons and also they may affected by various diseases. Such types of ulcers / wound and diseases should be diagnosed properly and treated in time for keeping the horse healthy and fit. In *Garuḍapurāṇa* after explaining the features of healthy and fit horse, classification of the same and protecting them from diseases and evil sprits, the classification of ulcers / wounds, diseases and their treatment, etc. described in details.

The classification of ulcers / wound in horses:

In Garuḍapurāṇa the vraṇa (ulcers/wounds) are classified broadly into two types based on the causative factors i.e.,

- 1. Āgantuja vraņa -The ulcers / wounds caused by Āgantuja kāraņa (traumatic, or extraneous factors).
- 2. $D\bar{o}$ ṣaja vraṇa The ulcers / wounds due to derangement of $D\bar{o}$ ṣa i.e. the humors. They are sub classified based on the type of $D\bar{o}$ ṣa as
- 1. $V\bar{a}taja\ vraṇa$ The ulcers / wounds caused due to the derangement in $V\bar{a}ta$. The main characteristic feature is $Cira\ p\bar{a}k\bar{\imath}$ (delayed suppuration).
- 2. *Kaphaja Vraņa* The ulcers / wounds caused due to the derangement in *Kapha*. The main characteristic feature is *Ksipra pākī* (suppuration speedily).
- 3. *Pittaja Vraņa* The ulcers / wounds caused due to the derangement in *Pitta*. The main characteristic feature is *Dāha* (burning sensation).
- 4. Śōṇitaja/Raktaja Vraṇa The ulcers / wounds caused due to the derangement in Rakta. The main characteristic feature is Manda vedanā (mild pain).

The Vrana cikitsā (management of the ulcers / wounds)

In the management of ulcers / wounds the first step for the $\bar{A}gantuja\ vrana$ (traumatic ulcers / wounds) caused by $\hat{S}astra$ (Weapons) and for the $Dusta\ vrana$ (non healing ulcers/ wounds) is $Vis\bar{o}dhana$ (wash off the ulcer's / wound's impurities by medicated decoction). After that the following formulations can be used for $\hat{S}\bar{o}dhana$ (purification), $R\bar{o}pana$ (healing) externally.

- 1. The *Ēraṇḍa mūla* (Caster root), two types of *Haridrā* (Turmeric), *Citraka* (Plumbago zeylanica), *Viśvabhēṣaja* (Zingiber officinale), *Rasōna* (Allium sativum) and *Saindhava* (rock salt) are ground well with *Takra* (butter milk) or *Kāñjī* (sour gruel).
- 2. The *Tila* (Gingelly), *Saktukapiṇḍikā* (fried grain flour), *Saindhava* (rock salt) and *Niṃbapatra* (Neem leaves) are ground well with *Dadhi* (curds).

The management of various diseases

Kṛmi, Śleṣmā, Mada, Anila vināśa cikitsā (treatment of worms, mucous discharges, intoxication and deranged Vāyu)

A compound formulation made up of powdered *Paṭōla* (Snake Gourd), *Nimba* (Neem) leaves, *Vacā* (Sweet flag), *Citraka* (Plumbago zeylanica), *Pippalī* (Piper longum) *Sṛṅgavēra* (Zingiber officinale) should be administered to the horse with water.

Kuṣṭha cikitsā (treatment of cutaneous affections.): In any cuetaneous affection a decoction of Nimbapatra (Neemleaves), Paṭōla (Snake Gourd), Triphalā (Three myrobalans), and Khadira (Acacia catechu) should be successively given for three days to a horse, after Raktamōkṣaṇa (bloodletting).

Vraņa, Kuṣṭha cikitsā (treatment of ulcers / wounds and coetaneous affections): Application of Sarṣapa taila (mustard oil) is better. And Laśunādi kaṣāya (a decoction of Garlic, etc.) to be administered.

Nasya karma: In certain afflictions when Nasya (errhines) become necessary either the juice of Mātuluṅga (Citrus medica) or that of Māṁsī (Nardostachys jatamamsi) should be used for that purpose. The first day's dosage is two Pala (48gms) weight. Every day it has to be increased by a Pala. The maximum for a first class horse is eighteen Pala. In the average class it is fourteen and for the lowest class of horse it is eight Pala weight. Errhines are not to be administered in Autumn or summer seasons.

Anupāna useful in Aśvarōga cikitsā: The Anupāna i.e. the drink take along with or after medicine was important in treatment. Because it may help in carrying, absorption, assimilation and enhances action of the drugs. Normally the selection of Anupāna is done depends upon disease, Dōṣa etc. The following Anupāna are mentioned in Garuḍapurāṇa based upon the Dōṣa.

- a. Vāta rōga: In diseases of the deranged and aggravated Vāyu the medicine should be administered through the Taila (oil), or in combination with Śarkarā (sugar), Ājya/Ghṛta (ghee) or Tōya (water).
- **b.** Kapha rōga: In diseases of the deranged Kapham Sarṣapa taila (mustard oil) with Vyōṣa/Trikaṭu powders are used as anupāna.
- c. Pitta rōga: In the diseases of the deranged pitta the drugs should be administered along with Triphalā decoction as anupāna.

Na jugupsā Aśva lakṣaṇa: (characters of the horse which is liked by all): The horse, which Pakva Jambunibha (complexion of ripe Jamun fruit), Svarṇāvarṇa (golden coloured) and regularly fed on Ṣaṣṭika Śāli grains and milk, will never come to a state of being condemned and liked by all.

The management of Ardhaprahara Aśva (partially/slightly injured horse): The horse when hurt or injured should be treated immediately so as to keep fit. When the horse is partially injured, in such condition Guggulu is advised. And the diet should be Dugdha pāyasa (milk pudding) for immediate/ speedily recovery.

The diet for horses during illness: The diet also plays a role during the treatment because the food imparts a greater strength and vigour to the horses and acts as a general prophylactic against diseases. The following diets are mentioned for the horses in $Garudapur\bar{a}na$, which are according to the $D\bar{o}sa$.

- 1. The diet in *Vātaja vikāra:* The *Dugdha* (Milk) and *Salyannam* (rice) is the ideal diet in *Vātaja vikāra*.
- 2. The diet in *Pittaja vikāra:* In diseases due to the action of the deranged and aggravated *Pitta*, the diet should consist of a *karṣa* (12gm) weight of *Mamsarasa* (meat soup) mixed with *Madhu* (honey), *Mudgarasa* (green gram soup/ gravy) and *Ājya* (clarified butter).
- 3. The diet in *Kaphaja vikāra*: In diseases of the deranged *Kapha, Mudga* (green gram) or *Kulattha* (horse gram) *rasa* (soup/ gravy) mixed with *Kaṭu, Tikta* (pungent, bitter drugs), should be given to horses.

Treatment of *Bādhirya* (deafness) and *Tridōṣajanya rōga* (diseases manifested by three humours)

In the management of $B\bar{a}dhirya$ (deafness) and the affections or in diseases of $Trid\bar{o}sa$ origin, Guggulu is to be administered along with $Gr\bar{a}sa$ (mouthfuls) of grass, etc.

Dūrvā Kalpa for the management of Sarvarōga

In the management of Sarvarōga just like Vardhamāna Pippalī kalpa, Dūrvā (Cynodon dactylon) is advised to take in increasing doses. The details are as follows-One Karṣa Dūrvā should be given to a horse on the first day, and the dose should be increased by a Karṣa measure, each day, till the dose reaches five pala. During this treatment Eighty pala Pāna (drinks) or Bhōjana (diet) is consider as Para/Uttama (best/ maximum), Sixty Pala is the Madhyama (average) and forty pala is the Adhama (lowest/ minimum).

Management of miscellaneous disorders

The drugs along with decotion of *Triphalā* are advised if the horse is affected by *Vraṇa* (ulcers) / Kuṣṭha / Khañja (lameness). The medicines should be administered with Gōmūtra (cow's urine) in Mandāgni (impaired digestion), Śōtharōga (swelling/oedema). If they are affected by Vātapitta, Vraṇa (ulcers) the Ghṛṭasaṃyukta Gōkṣīra (cow's milk along with ghee) is advised. If the horse is Kṛṣa (emaciated), the diet shall be supplemented by Māṃsa (meat) for puṣṭyārtham (to improve the body).

Rōgaghna, Puşti, Bala, Tējō Vivardhana Yöga

For protection of the horses against diseases and to nourish, to imparts greater strength and vigour the following *Kalpa* of *Gudūcī* (Tinospora cardifolia) are advised.

- 1. Five *Pala* weight of *Guḍūcī* should be given to a horse during *Śarad* (autumn), *Grīṣma* (summer) in early morning along with *Ghṛta* (clarified butter). This imparts a greater strength and vigour to a horse and acts as a general prophylaxis against disease.
- 2. Gudūcī along with milk
- 3. *Guḍūcī* along one or three or four palams of powered *Śatāvarī* (Asparagus recemosus) and *Aśvagandhā* (Withania somnifera).

Features and management of Epidemics out break

In the studform when suddenly the horses assume uniformity in colour and features or die together, it must be immediately considered as an epidemic out break. It has to be managed and should take proper precautionary measures to prevent it. For this the following rites and remidies are advised.

The rites: The vitiation may be warded off by the performance of proper prophylactic rites, and $H\bar{o}ma$, as well as by feeding the pious and learned Brahmins.

The medicines: The medicine known as *Harītakī-Kalpa* may be given to horses under these circumstances will be benifecial. The mode of administration of *Harītakī-Kalpa* is as follows

"On the first day, five $Harītak\bar{\imath}$ (Teminelia chebula) pasted together with $G\bar{o}m\bar{u}tra$ (cow's urine), Taila (Gingili oil), and Lavaṇa (rock salt) are given. Every day the dosage is increased by five $Har\bar{\imath}tak\bar{\imath}$ till the maximum of hundred.

The *Uttama mātrā* (best dose) is hundred, and eighty *Madhyama* (average) and sixty *Harītakī* is *Adhama/Kaniṣṭha mātrā* (the smallest dose).^{2, 3, 4, 5}

Elephant's health care

Elephant is a largest land animal living in Asia and Africa. In ancient India the Elephant is an important tool for Army as well as civil work of a King and also for temple rituals. Elephants are considered as *Vajra* in war and also for different types of work. Only one Elephant can win over six thousands Horses. Hence one has to keep up the fitness of the Elephants always. *Pālakāpya*, an ultimate authority on elephant medicine belonged to the Rigvedic period 2000-4000 B.C., recognized the importance and wrote a treatise know as *Gaja Āyurvēda* or *Hasti Āyurvēda* which dealing with elephant medicine and dedicated to Lord *Gaṇēśa*. Hence in India Elephant is considered as sacred animal like Cow.

Gajāyurvēda/Hastyāyurvēda (Medical treatment of Elephant) in Garudapurāna

Ancient Indian literature is flooded with information on animal care, health management, and treatment of disease. The Gaja Āyurvēda or Hasti Āyurvēda is mentioned in Vēda, Pūraṇa, Brāhmaṇa epics. In Ācārakhaṇḍa of Garuḍapurāṇa the chapter entitled "Gajāśvāyurvēda" the last seven verses mainly dealt with Gaja Āyurvēda. The subject matter discussed in brief. It begins as "Now I shall expound that branch of the Āyurvēda which deals with the medical treatment of the diseases of elephants".

Management of diseases

The drugs, treatments enumerated in connection with diseases of horses may also be employed in the diseases of elephants. But the dosage is four times of that of a horse. In *Garuḍapurāṇa a Kaṣāya* known as *Rōga Śāmaka Kaṣāya* mentioned for treating the diseases of elephants.

Rōga Śāmaka Kaṣāya

It is made up of the following pacifying drugs. They are

- 1. Triphalā (Three myrobalans),
- Pañcakōla (Five drugs of Piper longum, its root, Piper chaba, Piper cubeba, dried Ginger)
- Daśamūla, (Roots of ten plants viz. Aegle marmelos, Oroxylum indicum, Premna integrifolia, Gmelina arborea, Stereospermum suaveolens, Solanum xanthocarpum, Solanum indicum, Uraria lagopodioides, Desmodium gangeticum and Tribulus terrestris.)
- 4. Vidanga (Embelia ribes)
- 5. Śatāvarī (Asparagus recemosus),
- 6. Guḍūcī (Tinospora cardifolia),
- 7. Nimba (Neem),
- 8. Vāsaka (Adhatoda vasica), and
- 9. Kimśuka (Butea monosperma)

Management of Epidemics out break

The prophylactic, or curative rites, in respect of the *Upasarga* (epidemics out break) among elephants is by means of a *Sānti karma* (pacifying rite), the worship of Gods and Brahmins and the gift of a *Kapilā* (pale-brown or tawny) cow. A physician while observing a fast shall tie garland of *Vacā* (Sweet flag), *Siddhārthaka* (white mustard seeds) around the tusks of an elephant for protecting from attacks of diseases. The worship of *Sūrya* (*Sun*), *Siva*, *Durgā*, *Śrī Viṣṇu* was for protection of the elephant. *Bali* (Oblations), offerings must be given to *Bhūta* and the elephant must be bathed with *Catur ghaṭa* (four pitcherfuls) of water. The diet consecrated by reciting the proper mantras shall be given to the elephant and the elephant must be smeared with holy ashes. The sacred rites act against the influences of malignant spirits and grant immunity.

Theses are few glimpses briefly expounded regarding the medical treatments to be employed for the cure of diseases of elephants mentioned in $Garudapur\bar{a}na$. The chapter ended as "Thus I have summarised what is mentioned in the two $\bar{A}yurv\bar{e}da$ treatises (that of horses and elephants)".^{2, 3, 4, 5}

Discussion and conclusion

The management of various diseases and disorders pertains to Cows mentioned in the chapter entitled "Nāṇauṣadha Prayōga Nirūpaṇa" and to Horses and Elephants in the chapter entitled "Gajāśvāyurvēda" of Garuḍapurāṇa Ācārakhaṇḍa. The Aśvāyurvēda is described elaborately but the Gaja, Gavāyurvēda are narrated briefly. In the chapter entitled "Gajaśvāyurvēda" other points like Sarvārtha lakṣaṇa - the healthy features, their classification, Aśvarakṣaṇa (Horse Protection) rites and classification of Vraṇas (ulcers/wounds), Nasyakarma, Anupāṇa (a fluid vehicle in medicine), Pathyāhāra (diet regime), management of Upasarga (epidemics) etc. of horses were discussed. And also some special rejuvenation therapies like Dūrvā, Guḍūcī, Harītakī kalpa and important formulations like Rōgaśāmaka Kaṣāya in Gajāyurvēda etc, are discussed. But it is mentioned that the drugs, treatment enumerated in connection with diseases of horses may also be employed in the diseases of elephants and other animals. The usage of metal & minerals drugs in the treatments of animals is not mentioned.

In India, history of traditional Veterinary medicine dates back to the era of Mahābhārata i.e. 5000 B.C., recorded in the form of "Nakula Samhitā". Medicinal plants were used with predictable results during the famous war of Mahābhārata, where thousands of animals afflicted with wounds and diseases were successfully treated under the able guidance of Pāṇḍava Princes Nakula and Sahadēva. The "Nakula Samhitā" which is written by them during the period of Mahābhārata, deals with the diseases of the animals and their treatment by medicinal plants could be essential and useful to indicate the claim on modern scientific line to clearly assess their value. Similarly other references are also found in Mahābhārata, i.e. Nakula had the responsibility of horses and Prince Sahadēva had the responsibility of cows in the palace of King Virāta. So, Prince Nakula was known as the Veterinarian of horses and Price Sahadēva as the Veterinarian of Cows. Prince Nakula was the author of the treatise "Nakula Samhitā and "Aśva Śāstra", while Prince Sahadēva was the author of "Gavāyurvēda". Ācārya Śālihōtra

of North Western part of India was regarded as the expounder of "Aśvāyurvēda". Where as Ācārya Pālakāpya of Aṅgadēśa was regarded as the expounder of Gajāyurvēda and Prince Sahadēva as the expounder of "Gavāyurvēda".

The present Veterinary Council of India adopted its insignia, the sculpture of a bull, which is a part of the text of the stone edict of Emperor Ashoka (around 300 BC), which projected the veterinary profession as its "best heritage" (Singh, 2002a). Ashoka, the grandson of Chandragupta, who turned to Buddhism after Kalinga war, gave a new turn in India to veterinary science. It is described that the first veterinary hospital existed in Ashoka's regime (Schwabe, 1978). The 'Baniyan Hospital' of Suratis is believed to be one of them, which consisted of a large piece of land enclosed by high walls. Provision was made inside, to accommodate animals. Thus, it is proved that there was super specialty available in this country not only for Human beings but also for Animals. It is high time that we $\bar{A}yurv\bar{e}da$ people develop such specialty in $\bar{A}yurv\bar{e}da$, publish the available literature and research work should be done to prove the claims and for the attention and acceptance of $Paśu\ \bar{A}yurv\bar{e}da$ - the Ancient Indian veterinary medicine globally.

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सारांश

गरुडपुराण में पशु आयुर्वेद

सुभोस वाराणसी एवं अला नारायण

पशु चिकित्सा का इतिहास मानव चिकित्सा के विकास से निकटता पूर्वक जुड़ा हुआ है। पशु चिकित्सा के प्रमाण अन्य प्राचीन सभ्यताओं जैसै हिन्दू, बेबीलिओन, हेब्र्यू, अरब, ग्रीक एवं रोमन की सभ्यताओं में पाये गये हैं। वेद, पुराण, ब्राह्मण, महाकाव्य आदि प्राचीन भारतीय साहित्य के पिवत्र ग्रन्थों में पशु देखभाल सम्बन्धी जानकारी की प्रचुरता है। पुराण विविध विषयों जैसे विभिन्न दृष्टिकोणों से की जाने वाली ईश्वरभिक्त, पारम्परिक विज्ञान जैसे आयुर्वेद, ज्योतिष, ब्रह्माण्ड, विज्ञान, धर्म, कर्म, पुनर्जन्म एवं अन्य धारणाओं पर विचार-विमर्श करने वाले प्राचीन धर्मग्रन्थ हैं। गरुडपुराण, अग्निपुराण, अग्निसंहिता, मत्स्यपुराण एवं अन्य ग्रन्थों में आयुर्वेदीय चिकित्सा के प्रयोग से पशुओं की व्याधियों के उपचार का उल्लेख किया गया है। गरुडपुराण एक महत्त्वपूर्ण सात्त्विक पुराण है, इसकी विषयवस्तु दो भागों १. पूर्वखण्ड २. उत्तरखण्ड में विभाजित है। पूर्वखण्ड में गवायुर्वेद और गजायुर्वेद का संक्षेप में एवं अश्वायुर्वेद का विस्तार से वर्णन किया गया है।