

Gajashastra: An encyclopaedia of elephant- lore in Ayurveda

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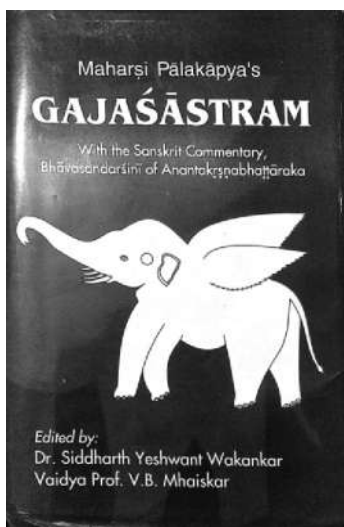
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Date of Submission: 15 June 2020 || Date of Acceptance: 9 December 2020

Editor's Note

Ayurveda has many ancient manuscripts and books which are less explored by the scientists and researchers. Some enthusiastic researchers occasionally bring these to the light of the day and make them available to the world. Since these books or the manuscripts are new to the world despite their antiquity in terms of their original writing and subsequent publication, AAM decided to bring the uniqueness of such books in the form of book review. This is presumed that this will increase the interest of our readers towards the relatively unexplored areas covered in these books and will eventually open the way for research and practice in these areas.



Introduction

Ayurveda is the science for all creatures and not only to the mankind. Although, much literature exists on *Ashwayurveda*, *Gajayurveda* and *Vrikshayurveda*, it has not been well explored. *Gajashastra* is written by sage *Palakapya*. The book is an encyclopaedia on elephant-care and is a good read for anyone interested in animal welfare, elephant-lore, history of elephant lore in India, Ayurveda and veterinary sciences. The book deals with elephant care in total except for the diseases and treatment which are dealt in *Hastayurveda* by the same author. The

book has an introduction and summary of chapters in English contributed by the editors; followed by the Sanskrit text, a Sanskrit commentary and illustrations found in the original manuscript along with English translation of the chapters. The book is already published yet not very popular. This review would help the scientific community understand the depth of elephant science existed in Ayurveda and initiate more researches on elephant care through Ayurveda.

Authors

Table 1 shows the authors and their contributions. The editors have also added an introduction and summary of the chapters to the text. The book was published by Bharatiya Kala Prakashan, Delhi in 2006.

The time period of Palakapya and Ananthakrishnabhattacharaka are not known precisely. The original Telugu manuscript of the *Gajashastra* was transcribed to Devanagari by Pandit V.Vijayaraghavacharya in 1926 under the patronage of King of Awad, Sri Balasaheb Shrinivasrao Pant. The king, being a scholar and a great painter, added 136 illustrations of elephants in the book. There is another version of *Gajashastra* printed from Tanjore which contain only texts and does not contain commentary.

Dr Siddharth Yeshwant Wakankar (1947) is a scholar of repute in Sanskrit, Ardha Magadhi and Ancient Indian History and Culture who has authored various books like “literary gems from Sanskrit literature” and more. He is the retired director of Oriental Institute, affiliated to Maharaja Sayyajirao University of Baroda. Vaidyaraja Prof. B. V. Mhaishkar (1929) is a post graduate of Kayachikitsa from Tilak Maharashtra Vidhyapeetha, Pune and the recipient of Lifetime achievement award of Rashtriya Shikshan Mandal, Pune.

Books similar to Gajashastra

Hastyayurveda and *Matangaleela* are two other books on *Gajayurveda*. *Manasollasa* of Someshwara has an entire section devoted for elephants. All the three books, *Hastyayurveda*, *Gajashastra* and *Matangaleela* begin with the mythological story of *Romapada* and *Palakapya*, how elephants got banished from heavens and started living on earth.

Hastyayurveda

The work *Hastyayurveda* is also attributed to sage *Palakapya*. *Gajashastra* lays more stress on the healthy aspects of elephants whereas *Hastyayurveda* deals with anatomy and physiology of elephants, diseases and their treatment in detail. There are 15 *Pradeshas* (areas of body) in elephants with several subdivisions. The text deals with *Marmas*, *Dosha*, *Dhatu*, *Mala*, *Manas*, *Siravyuhas* etc.

Matangaleela

Matangaleela having 12 chapters is believed to be written by Neelakantha. It is translated to English by Franklin Edgerton as “elephant-lore of Hindus.” It is very similar to *Gajashastram*. It has good and bad omens with regards to the sounds of elephants, physical and psychological characteristics of elephants etc. It is like an updated version of *Gajashastram*.

Manasollasa

Written by Someshwara III, the book dates back to 12th

century. *Manasollasa* is like a guide for Kings. Since the elephants were considered as pride for kings, these are described in detail. It has description of *Gajavanas* similar to *Gajashastram* but *Bandhas* are exclusive of *Manasollasa*. Rest of good omen, bad omen and others are similar to *Gajashastram*.

Chapters of the book

Chapters are called *Prakaranas*. There are 19 *Prakaranas* in total whereas Tanjore version has only 10. Content of each *Prakarana* is tabulated in Table 2.

The chapters from 1st to 8th tally verbatim in both editions. 9th chapter of Tanjore edition includes all the topics described in the current book from chapters 10 to 19. 10th chapter deals with topics like pregnancy in elephants, rut formation, rearing of young calf etc. The Sanskrit commentary and English translation are available only till the 14th chapter.

Contents of the Gajashastra

The book has a four part introduction by the editors. The first part called “elephants”, deals with the classification of various animals in different branches of Indic science and position of elephants in particular. Second part deals with the contents of *Gajashastram*. Third part is the difference between *Hastyayurveda* and *Gajashastram*. The fourth part deals with *Gajashalas* and description of *Gajashala* at Vadodara.

The actual text of *Gajashastram* begins with a mythological story of sage *Palakapya* who was delivered by a female elephant and the second chapter speaks about mythological story of creation of *Diggajas* (divine elephants) with four tusks and two wings and the third chapter deals with the curses on *Diggajas*. It would have been a laughing stock if not for the intelligent interpretation of the editors. “Delivered” is interpreted as an orphan child picked up by the elephants and delivered at the doors of the hermitage. *Diggajas* are understood as Tusker Mastadones and Shovel Tuskers which are now extinct.

Gajavanas (elephant forests)

Elephant forests are 16 different habitats of elephants including 8 main forests and 8 sub territories of Himalayas. *Gajavanas* included different provinces and elephants of each *Gajavana* had specific characteristics. (Table 3) The editors also gave current geographical location of these regions. There is another description of region specific characteristics in the context of *Manogunas* which is different from *Gajavanas*. (Table 4 and 5)

Absence of Rajasthan in the list of *Gajavanas* hints that elephants were imported for war even during ancient times. But the absence of South India is striking. However, elephants of South India are described in the context of *Manogunas*. This could be because the description of *Gajavanas* were taken directly from *Arthashastra* and during the times of *Kautilya*, South India was less explored. ^[1]

Age-wise growth

Monthly development till 1 year, followed by yearly development till 10th year and after that decade-wise development is described. The average lifespan of elephants is 120 years but most elephants do not live after 100 years. There are different opinions regarding the life span of elephants by other authors. Editor quotes an interesting observation made by G.P. Sanderson in his book, “Thirteen years among Wild beasts of India” that elephant in wild lives longer than those under captivity and can live up to 150 years. African elephants are short lived with a lifespan of just 50-60 years.

The editor quotes from *Hastyayurveda*, the signs and symptoms of long life which is similar to *Ayupariksha* for humans told in *Charaka Samhita*. ^[2] There are as many as 31 features including firm body joints, skin covered with hair, long hair and large bumps on head which decide the lifespan of elephants.

Eyes and Voice

Eyes of the healthy elephant resembles the colour of honey, *Ghratapinda* or *Gomedaka* gem and is radiant like sun or

fire. The sound made by elephant resembling the sound of conch, thunder, swan, drum (*Dhundhubhi*), roar of a tiger, lion or bull is a good omen, while that of wild boar, parrot, cow or monkey is considered bad.

Gait

An elephant calf is able to stand within an hour of its birth, starts walking and running but is not stable. The elephant assumes stable walk in 7th and speed in 8th month. (Table 6)

The normal speed of an average elephant is 8-10 km per hour when alone, 16 km per hour when walking in the group for long distances and 40 km per hour when frightened, angry or otherwise charged.

Body marks

No compatible modern literature on this aspect of the elephants is available. It forms a part of *Samudrika Shastra*. In the book, pictures giving an idea of the nature of such circles and figures are illustrated.

Congenital defects

There are approximately 40 congenital defects in elephants such as three tusks, extra body parts, devoid of one or two parts of the body of limbs, extra leg, dumbness, deafness, ugly hair, lustreless skin etc. No corresponding views of the modern scholars are available in this regard.

Measurement

Measurement of elephants as per their age and location is dealt in detail. The differences between African and Indian elephants are also dealt along with very good illustrations. The posology is like the one described in *Charaka Samhita* with slight variations. The definition of *Paramanu* is same like *Charaka Samhita*. ^[3]

Yojana is used to measure forest area and 1 *Yojana* is roughly 4-5 miles whereas *Hasta/Aratni* is the unit for the measurement of body parts of elephants.

Utility of the book in present day

During ancient and medieval times, elephants were a part of warfare and hence a matter of prestige for the kings. However, with changes in warfare, elephants are now confined to zoos and temples in addition to national forests and wild life sanctuaries. Zoos are criticized for the quality of their elephant management programs because of the miserable lives of captive elephants. Poor health and reproductive failures are the result of lack of exercise, exposure to cold temperatures and disease; and stress due to the use of “brutal” training techniques, chaining and inappropriate social environments. ^[4] *Gajashastra* may help in designing the protocol for improvements in zoo elephant management.

Conclusion

The number of elephants has decreased with the increase in the incidents of elephant deaths. This treatise along with *Hastyayurveda* can be a great help for people looking for conservation of elephants by giving new insights. The treatise can also be of high interest to those doing research in veterinary sciences and elephant lore. *Gajayurveda* is one of the less explored aspects of Ayurveda and hence

this book can provide leads for scientific research in the area. *Gajashastra* and *Hastyayurveda* should be made a part of curriculum of veterinary sciences. The book is in simple language with illustrations and thus is highly useful even for those who have very minimal knowledge of Ayurveda.

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Table 1. Contributors of Gajashastra

Name	Contribution
Palakapya	Author
Anantakrishnabhattacharya	Commentator
V. Vijayaraghavacharya	Translator
Sri Balasaheb Srinivasrao Pant	Illustrators
Siddharth Yeshwanth Wakankar	Editor
Prof. B V Mhaskar	Editor

Table 2. *Gajashastra* chapters and their contents

Prakarana	Content
1	Origin of Palakapya
2.	Origin of Elephants
3.	Curse of elephants
4.	The forests in which these elephants are found
5.	Age of elephants
6.	Elephants of different regions
7.	Keddah
8.	4 main classes of elephants
9.	Creed of certain elephants
10.	Varna (Colour) of elephants
11	Chaya (Complexion) of elephants
12.	Odour of elephants
13.	Strength and patience of elephants
14.	<i>Satwa</i> of elephants
15.	Gait of elephants
16.	Marks on the body of the elephant
17.	Congenital defects
18.	Measurements of elephants
19.	The seat on the back of the elephants

Table 3: Features of elephants based on *Gajavanas*.

Sl.No	Vana	Colour	Size	Conduct	Strength	Price
1.	Prachya	Whitish black	Stout stomach, long trunks, broad cheeks	Calm, swift, active and easy to control	Very powerful	Very high
2.	Chedi	Tawny	Little short	Not so easy to control	Proportionally strong	Very high
3.	Dasarna	Brown	Very tall	Very good natured	Very strong	Very high
4.	Angareyaka	Very dark	Very tall	Beautiful eyes and smooth	Strong	Very high
5.	Kalinga	Black	Medium sized	Slow in movement	Strong	high
6.	Aparanta	Jet black	Tall and very smooth	Very bold in hunting and war	Very strong	Very high
7.	Saurashtra	Jet black	Narrow head and face, small nails	Dull	Inferior, short lived	low
8.	Panchanada	Very dark	Physically very strong and huge body	Not easy to control, bad qualities	Very strong	Very high

Table 4: *Mano Guna* of Elephants based on their region

No.	Guna	Characteristics	Forests
1.	Satwa	Good characters all the time, temper, more beauty, good strength in wars	Kerala, Pulinda, Sahya
2.	Rajas	Lazy, voracious eater, very passionate, will not work unless punished.	Kambhoja, Girvanadi
3.	Tamas	Dull natured, very difficult in grasping instructions, very sleepy.	Saurashtra, Matsyadi

Table 5: Elephant *Satwa*

Sl no.	Name	Description	Explanation
	<i>Deva satwa</i>	Mind like Gods	Very beautiful and shining, very pleasant and happy, healthy even during old age, work with zeal and energy. They have smell of sandal or lotus. They should be ridden over during coronation
	<i>Gandharva satwa</i>	Mind like musicians	Fond of music, have the smell of <i>Punnaga</i> , sandal or lotus, intelligent but little lazy.
	<i>Manusha satwa</i>	Mind like humans	They are of four types. <i>Brahmana, Kshatriya, vaishya</i> and <i>shudra</i> .
	<i>Pishacha</i>	Mind like ghosts	They like to remain in secluded places, smell like corpse, roam around at night and have a terrible cry, hot tempered, wicked and mischievous. They should not be purchased.
	<i>Sarpa</i>	Mind like snakes	They have bad smell of sponge, toddy, mud and flesh and produce sound like serpents and are hot tempered. They will suddenly cut down friendship. They will eat the food at the time of rut and are unfit for any work
	<i>Rakshasa</i>	Mind like demons	They have bad smell of cat, crow, monkey, donkey or smell of their dungs. Fond of eating flesh and drinking blood. They are indifferent and ungrateful. They roam around during nights and are unfit for any work.

Table 6: Age and walk of the elephants

Age	walk and other related things
first Month	stands only
Second month	begins to play in the mud
3rd month	walks away from the word for a short distance
4th/ 5th month	runs movements are fast
7th month	walk become stable
8th month	walks with speed
3rd year	leg and food joints become strong and leaves clear food marks on the path it traverses
4th year	knows about the track it goes
8 year	walks very swiftly
Second decade	Walks very fast like and arrow
6th decade	decline in speed
8 decade	become Breathless on walking fast
9th decade	does travel with a herd but prefers to live in a cave aloof
10th decade	walks very slowly and avoids to go Uphill