WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 9, Issue 7, 1853-1864. Research Article ISSN 2277– 7105

EFFECT OF NAGARADI ASHCHYOTANA IN KAPHAJA ABHISHYANDA W.S.R TO SIMPLE ALLERGIC CONJUNCTIVITIS

***[1]Prof. (Dr.) Gunjan Sharma, [2]Dr. Sarita Yadav, [3]Dr. Arun Kumar and [4]Dr. Aditi**

*[1]Prof. & Head of the Dept. of Shalakya Tantra, Rishikul Campus, UAU Haridwar.

[2]PG Scholar, Dept. of Shalakya Tantra, Rishikul Campus, UAU Haridwar.

[3]Assistant Professor, Dept. of Shalakya Tantra, Rishikul Campus, UAU Haridwar.

[4]Assistant Professor, Dept. of Shalakya Tantra, Gurukul Campus, UAU Haridwar.

Article Received on
12 May 2020,

Revised on 01 June 2020,
Accepted on 22 June 2020,

DOI: 10.20959/wjpr20207-17867

***Corresponding Author**
Prof. (Dr.) Gunjan Sharma
Prof. & Head of the Dept. of Shalakya Tantra, Rishikul Campus, UAU Haridwar.

ABSTRACT

Context: *Kaphaja Netra Abhishyanda* is defined in *Ayurveda* as the disease affecting all parts of the eye characterized by *Guruta* (Heaviness of lids), *Kandu* (Itching), *Muhurmuhursrava* (Repeated lacrimation), photophobia and burning sensation in eyes etc. Simple allergic conjunctivitis is the inflammation of conjunctiva caused by a wide range of allergens like pollens, dust and smoke, animal dander, mites or other allergy causing substance and is characterized by itching, hyperaemia and mild papillary reaction. On reviewing the clinical presentation from all the *Ayurvedic* texts it is found that Simple allergic conjunctivitis resembles with *Kaphaja Abhishyanda*. Though the disease does not affect the vision but it causes extreme discomfort and its symptoms are annoying. *Ayurvedic* treatment could bring very promising result in bringing down the sign and symptoms of *Kaphaja Abhishyanda*/ Simple Allergic Conjunctivitis. Considering the requirements for developing some *Ayurvedic* formulation for management of *Kaphaja Netra Abhishyanda* the present research work entitled "Role of *Nagaradi Ashchyotana* in *Kaphaja Netra Abhishyanda* w.s.r to Simple Allergic Conjunctivitis was undertaken. Naga*radi Ashchyotana* in the form of eye-drop in lower fornix 2 drops 4 times a day for 15 days. Significant results were found in the groups. **Study Design:** The trial was conducted on 15 clinically diagnosed patients of *Kaphaja Netra Abhishyanda*/ Simple allergic conjunctivitis selected from OPD/IPD of Rishikul Campus, Haridwar. **Results:** Results were observed and data was statistically analysed by adopting Wilcoxon signed rank test. 6.7% patient were cured, 20.0% Patients were having Marked Improvement, 53.3% Patients were having

Moderate Improvement and 20.0% Patients were having Mild Improvement. **Discussion:** Most of the drugs are having *Katu, Tikta, Kashaya which* pacify the *Kapha- Dosha* and *Kashaya Rasa* does *Lekhana* of *Kapha Dosha*. *Laghu Guna* pacify the *Guruta* and *Ushna Veerya* and *Teekshna Guna* increases the penetration power of the drug power of drug and do the *Lekhana* of the *Kapha Dosha*. Ingredients of drug Nagaradi *Ashchyotana* are having *Karmas* (actions) like *Kandughna, Shothahara, Vedana-Sthapana, Srotoshodhaka, Aampachak, Rasayana, Shoolprashamana*. So, it may act as anti-inflammatory, analgesic, anti-allergic, anti-oxidant and immunomodulator. **Conclusion:** It can be concluded from detailed conceptual description that *Kaphaja Abhishyanda* and Simple allergic conjuctivitis are nearly same entities.Statistically significant results in all subjective and objective parameters except papillary reaction. No adverse effects were observed during study and after completion of the trial.

KEYWORDS: Simple allergic conjunctivitis, *Kaphaja Abhishyanda, Nagaradi Ashchyotana*.

INTRODUCTION

Importance of *Ayu* is well explained by *Ayurveda*.[1] *Ayurveda* the ancient science of India has described the importance of eye, without which a life is miserable. Eyes has been given prime importance and in this regard *Acharya Vagbhatta* has said that for a blind person whole universe is of no value inspite of having plenty of wealth sources because days and nights are same for him.[2] *Acharya Sushruta* has described 76 types of *Netra Roga* in *Sushruta Samhita Uttertantra* according to structure affected in the eye.[3] The term *Abhishyanda* is used extensively in *Ayurvedic* literature in different contexts. In *Sushruat Samhita* it is mentioned that *Abhishyanda* is the root cause of all the disease.[4] It also comes under *Aupasargic Roga*[5] which are infectious diseases caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can spread, directly or indirectly from one person to other.[6] If *Abhishyanda* is not treated properly, it may lead to further complications eg. *Adhimantha, Hatadimantha, Drishtinasha*.[7]

प्रायेणसर्वेनयनामयास्तुभवन्त्याभिष्यंदनिमित्तमूला:।

तस्मादाभिष्यन्दामुदीर्यमानामुपचारेदाशुहितायधीमान्।।[8]

Abhishyanda is of 4 types *Vataja Abhishynda, Pittaja Abhishyanda, Kaphaja Abhishyanda, Raktaj Abhishyanda*.[9] Out of these four types the Clinical picture of *Kaphaja Abhishyanda*

nearly simulate with the term Simple allergic conjunctivitis mentioned in modern terminology. According to Various *Acharyas Kaphaja Abhishyanda* is characterized by *Kandu* (Itching), *Guruta* (Heaviness of lids), *Akshishopha* (Edema), *Muhur-pichchhilsrava* (Stingy discharge), *Updeha* (Stickiness)' etc.[10] Simple allergic conjunctivitis is a mild, nonspecific allergic conjunctivitis characterized by itching, hyperaemia and mild papillary reaction. Basically, it is an acute or subacute urticarial reaction. It is a common disease in this modern era due to global warming.[11]

Need of the study

In the current era, human beings are highly exposed to pollution and this introduces contaminants to the environment that causes instability, disorder and harm to the ecosystem. The basic reason behind the allergic reactions in the body is altered immunity or hypersensitivity. Ultimately, this entire polluted environment leads to decreased immunity in human beings and by causing allergic reaction in human body it ends in a single word- Allergy.

According to world allergy organization, currently allergies are being considered as an epidemic of 21 centuary.[12] Now a day's environment is being highly polluted, due to which there is increased response to allergens in the body. As Conjunctiva is ten times more sensitive than skin to allergens, there occurs hyperemia and mild papillary reaction in conjunctiva which leads to itching and other symptoms in the eye. It has been reported that about 1/5th of entire population suffers from allergies of which about 20% is due to Allergic Conjunctivitis.[13] In India allergy is on higher side with 25.5% population affected by this allergy. The prevalence of Allergic conjunctivitis varies worldwide, usually ranging between 15-20%, but more recent studies implicate rates as high as 40%.[14]

Drugs being used in modern ophthalmology are Mast cell stabilizer (e.g. Sodium cromoglycate), Decongestants, Topical anti-histaminic drugs (e.g. Pheniramine), NSAID's and Corticosteroids and systemic antihistaminic drugs which gives symptomatic relief and long-term use of these medicines are so costly and having large amount of adverse effects like preservatives induced dry eye, steroid induced cataract and glaucoma etc. Systemic antihistamines cause drowsiness, dizziness, dry mouth, increased appetite, wt. gain etc. Allergic conjunctivitis is one of such conditions in which all the patient do not respond equally to anti allergic drugs. None of antiallergic drugs available in the market can cure the allergic conjunctivitis completely in all the patients. Hence there is need to find out an

effective *Ayurvedic* treatment which can treat the disease without causing other complications in the eye and develop significant relief in the symptoms of the patients.

The research work was planned to evaluate the *Ayurvedic* drug on the chronicity of the disease and planned under the title **"Role of *Nagaradi Ashchyotana* in *Kaphaja Netra Abhishyanda* w.s.r to Simple allergic conjunctivitis"**.*Nagaradi Ashchyotana*[15] has the ingredients which has the properties like *Kandughna*, *Srotoshodhaka*, *Vednasthapana*, *Aampachaka*, *Sothhara*, *Chakshushya* and *Kaphavatashamak* effect and *Teekshan* properties it eliminates the *Dosha* from the eye.

The main aim of any pharmaco-therapeutics is the attainment of an effective concentration at the site of action for a sufficient time to elicit the response. *Ashchyotana* remains in the contact of conjunctiva for a very short period of time. Hence ***Nagaradi ointment was*** given in the group –B for local application in lower fornix in night for the assessment of combined effect.

In this study 15 patients were takenb. Patients were selected from O.P.D and I.P.D. of P.G. Department of *Shalakya Tantra*, Uttarakhand Ayurveda University, Rishikul Campus, Haridwar Uttarakhand.

PLAN OF WORK: The entire study contains –

1. Review of literature

a) Review of *Ayurvedic* literature

b) Review of Modern literature

c) Drug Review

2. Material and Methods

3. Results and Discussion

a) Observations

b) Results

c) Discussion

4. Summary and Conclusion

a) Summary

b) Conclusions and Recommendations

AIMS AND OBJECTIVES

1. To study conceptually *Kaphaja Abhishyanda* and Simple allergic conjunctivitis in both *Ayurvedic* & modern perspectives.
2. To evaluate the efficacy of *Nagaradi Ashchyotana* in the form of eye drop in the *Kaphaja Abhishyanda/ Simple Allergic Conjunctivitis*.

2. MATERIAL AND METHODS

Research in the field of medicine has inherent dynamism, as it involves perpetual interaction with the living beings. The aim of research is to find out a new vision in the old theories through honest and sincere effort. For a scientific clinical study to carry out it in a systemic way, a proper study design is mandatory. The present clinical study was aimed at managing the *Kaphaja Abhishyanda*- Simple allergic conjunctivitis by *Ayurvedic* drugs.

The clinical study has its own importance in appraising the infrastructure of the disease and also appraising the efficacy of the drug. So, keeping all these facts in view, the present clinical study has been undertaken with the following aims and objectives.

AIMS AND OBJECTIVES

1. To study conceptually *Kaphaja Abhishyanda* and Simple allergic conjunctivitis in both *Ayurvedic* & modern perspectives.
2. To evaluate the efficacy of *Nagaradi Ashchyotana* in the form of eye drop in the *Kaphaja Abhishyanda/ Simple Allergic Conjunctivitis*.

PLAN OF STUDY: To execute above objectives present research work was planned as under:

Source of data- 15 Patients (30 eyes) were selected from OPD and IPD of PG Department of *Shalakya Tantra*, Rishikul Campus, Haridwar Uttarakhand *Ayurveda* University (Dehradun). The study was conducted on 15 patients. Selection was done on the basis of inclusion and exclusion criteria depending on the detailed clinical history, physical examination and other necessary investigations irrespective of their cast, creed and gender.

SELECTION OF PATIENTS

- Selection was done on the basis of clinical examination.

- An elaborative case taking Performa was specially designed for the purpose of incorporating all aspects of the disease *Kaphaja Abhishyanda*/ *Simple Allergic Conjunctivitis* on *Ayurvedic* and modern parameters.
- Informed consent was taken from all the registered patients for the trial.

SAMPLING TECHNIQUE: Simple random sampling method was adopted for the selection of the patient.

Conceptual study: *Ayurvedic* and modern text is studied in detailed regarding the disease under trial.

Type of study: Simple Randomized Open Clinical study.

INCLUSION CRITERIA

- Patient willing and able to follow the treatment.
- Patients aged between 18-40 years.
- Patients, presenting with sign and symptoms of *Kaphaja Abhishyanda*/ Simple Allergic Conjunctivitis.

EXCLUSION CRITERIA

- Patients, having complications like corneal xerosis, corneal ulcer, trachoma, dacryocystitis.
- Patients having any other types of conjunctivitis like phlyctenular keratoconjunctivitis, infective conjunctivitis…….other types of allergic conjunctivitis.

CRITERIA FOR WITHDRAWAL

- Personal Matters
- Cases complicated with superadded infections

NATURE OF CLINICAL STUDY

Clinical Study was carried out in three phases:

(1) Diagnostic phase **(2)** Interventional phase **(3)** Assessment phase

1) Diagnostic phase

All the patients of *Kaphaja* Abhishyanda / Simple Allergic Conjunctivitis were diagnosed on the basis of various clinical presentation and findings.

(A) Criteria for diagnosis

Symptom:

1. *Guruta* (Heaviness of lids)
2. *Kandu* (Itching in eyes)
3. *Updeh* (Stickiness of eyes)
4. *Muhurmuhursrava* (repeated lacrimation)
5. Mild Photophobia
6. Burning sensation

Sign

1. Bulbar conjunctival congestion
2. Palpebral conjunctival congestion
3. Conjunctival chemosis
4. Papillary reaction
5. Edema of lids

(B) Functional Examination of eye

1. **External Examination**- A complete examination of eyebrows, eyelids, lid margins, conjunctiva, cornea, lacrimal passage and eye movement was done to rule out any abnormality.

2. **The visual acuity** for distant vision was taken with Snellen's chart at 6 meter distance. Visual acuity for near vision was taken at 25-35cm distance with good illumination. Patients had visual acuity 6/6 (with or without Spectacles) were taken.

3.Slit lamp Examination- It was done to rule out any abnormality of conjunctiva, cornea, aqueous humour and lens.

4. Fundoscopy- It was done to rule out any refractive media pathology.

5. Investigations

a) CBC
b) TLC
c) DLC
d) ESR
e) Absolute Eosinophil count

f) Conjunctival cytology

INTERVENTIONAL PHASE-The study was intervened on 15 patients in which-

- ***Nagaradi Ashchyotana*** (in eyedrop form) for 15 days.
- In all the patients *Deepan-pachan* (*Chitrakadi Vati* 2 tab thrice a day) was given for 3 to 7 days according to *Kostha*, prior to *Ashchyotana Karma.*
- Dose: 8 drops/day for instillation (2 drops qid).

Follow up study: Assessment was done on 7th day of starting the treatment. After completion of treatment, there was 2 follow ups at the interval of 15 days.

ASSESSMENT PHASE

- Observations of patients were carried out before, during & after the treatment.
- Grading and scoring system was adopted for assessing signs and symptoms of *Kaphaja Abhishyanda* and SAC before and after completion of trial.

	Subjective Parameters	
1.	*Guruta* (heaviness on lids)	0No heaviness on lids. 1Heaviness on lids only in the morning. 2Intermittent heaviness on lids. 3Continuous heaviness of lids.
2.	*Kandu* (itching)	4No itching. 5Itching only on exposure to dust or other allergens. 6Intermittent itching. 7Continuous itching affecting routine work.
3.	*Upadeha(Stickiness of eyes).*	8No ropy discharge. 9Ropy discharge only in morning time. **10**Ropy discharge with no mopping required. **11**Continuous ropy discharge, mopping required
4.	*Muhu-muhursrava* (repeated lacrimation)	12No repeated lacrimation. 13Lacrimation on exposure to dust/sunlight. 14Intermittent repeated lacrimation. 15Continuous lacrimation affecting daily routine.
5.	Photophobia	16No photophobia. 17Photophobia on exposure to sun light. 18Intermittent photophobia. 19Continuous photophobia affecting routine work.
6.	Burning sensation	20No burning sensation. 21Only on exposure to sun light. 22Intermittent burning sensation. 23Continuous burning sensation affecting routine work.
	Objective Parameters	
1.	Palpebral	0Congestion absent.

	Conjunctival congestion	1Congestion with clear pattern of blood vessels. 2Congestion with poorly visible pattern of blood vessels. 3Velvety conjunctiva with loss of blood vessels pattern.
2.	Bulbar Conjunctival congestion	4Congestion absent. 5Brownish bulbar conjunctiva. 6Conjunctival congestion in palpebral aperture. 7Complete congestion in bulbar conjunctiva.
3.	Conjunctival Chemosis	8Nil. 9Minimal. **10**Focal areas of chemosis. **11**Ballooning of conjunctiva.
4.	Edema of lids	12Nil. 13Minimal. **14**Present only in morning. **15**Present whole of the day affecting routine work.
5.	Papillary reaction	16Nil. 17covering ¾ of upper tarsal plate. 18covering half of upper tarsal plate. 19Covering whole of upper tarsal plate..

STATISTICAL ANALYSIS

All information on various parameters was gathered and statistical study was carried out in terms of median (X), Standard Deviation (S.D.), Standard Error (S.E.) and Wilcoxon's signed rank-Test (W-value) before and after treatment and finally result were incorporated in terms of probability (p) as:

- $p > 0.05$ - Insignificant
- $p < 0.05$, $p < 0.01$ – Significant
- $p < 0.001$ - Highly significant

Overall effect of therapy was assessed on basis of the assessment. It was done by adopting the following scoring pattern for subjective.

Cured:	≥90 % relief in signs and symptoms and no recurrence during follow up study
Marked improvement	76% to 90 % improvement in signs and symptoms
Moderate improvement	51% to 75% improvement in signs and symptoms.
Mild improvement:	25% to 50% improvement in signs and symptoms.
No improvement	≤25% improvement in signs and symptoms.

3. OBSERVATIONS AND RESULT

Since observations are on ordinal scale, we have used **Wilcoxon Signed Rank test** to test the efficacy. We have used Median to asses before and after treatment condition of patients. P-Value less than 0.05 show significant result after treatment.

Efficacy Study of drug

Symptoms		Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
		BT	AT				
Guruta(Heaviness on lids)	RE	2	0	105	<0.001	66.7	HS
Guruta(Heaviness on lids)	LE	2	1	66	0.003	69.2	Sig
Kandu (Itching)	RE	3	0	120	<0.001	82.9	HS
Kandu(Itching)	LE	3	0	120	<0.001	85.3	HS
Upadeh(Stickiness)	RE	2	0	120	<0.001	69.6	HS
Upadeh(Stickiness)	LE	2	1	105	<0.001	66.6	HS
Muhur-muhursrava (Repeated Lacrimation)	RE	2	1	105	0.001	70.5	Sig
Muhur-muhursrava (Repeated Lacrimation)	LE	2	1	91	<0.001	67.6	HS
Photophobia	RE	2	0	55	0.005	61.5	Sig
Photophobia	LE	2	1	55	0.005	55.5	Sig
Burning Sensation	RE	1	0	55	0.005	66.6	Sig
Burning Sensation	LE	1	0	66	0.005	62.5	Sig
Palpabral conjunctival congestion	RE	2	0	105	<0.001	65.6	HS
Palpabral conjunctival congestion	LE	2	0	105	<0.001	65.6	HS
Bulbar conjunctival congestion	RE	2	0	91	0.001	70.0	Sig
Bulbar conjunctival congestion	LE	2	0	78	0.002	67.7	Sig
Conjunctival chemosis	RE	2	0	78	0.002	77.14	Sig
Conjunctival chemosis	LE	2	0	78	0.002	72.0	Sig.
Oedema of lids	RE	2	1	91	0.001	53.3	Sig.
Oedema of lids	LE	2	1	105	0.001	56.6	Sig.
Papillary reaction	RE	2	0	36	0.010	45.87	NS
Papillary reaction	LE	2	0	28	0.018	41.6	NS

Analysis of above table reveals following points

Statistically highly significant relief (p<0.001) was found in *Guruta* in right eye(66.7%) *Kandu* (itching) (82.9%, 85.3% relief), *Upadeha* (stickiness) (69.6% and 66.6%relief), *Muhur-muhursrava* in left eye(repeated lacrimation) (67.6% relief), palpebral conjunctival congestion (65.6% relief).

Statistically significant relief (p<0.05) was found in *Guruta* (heaviness on lids) (69.2% relief), photophobia (61.5% and 55.5% relief), burning sensation (66.6% and 62.5% relief), oedema of lids (53.3% and 56.6%).

Statistically insignificant relief (p>0.05) was found in papillary reaction (45.87% and 41.6%).

On analyzing the data for overall therapy obtained results are as follows:

Result: one patient i.e. 6.7% was cured, Marked improvement was in 3 patient (20.0%), Moderate improvement in 53.3% i.e. 8 patients, Mild improvement was found in 20.0% patients i.e. 3 patients.

4. DISCUSSION

PROBABLE MODE OF ACTION OF *NAGARADI ASHCHYOTANA*

- Most of the drugs are having *Katu, Tikta, Kashaya which* pacify the *Kapha- Dosha* and *Kashaya Rasa* does *Lekhana* of *Kapha Dosha.*
- *Laghu Guna* pacify the *Guruta* and *Ushna Veerya* and *Teekshna Guna* increases the penetration power of the drug power of drug and do the *Lekhana* of the *Kapha Dosha.*
- Ingredients of drug Nagaradi *Ashchyotana* are having *Karmas* (actions) like *Kandughna, Shothahara, Vedana-Sthapana, Srotoshodhaka, Aampachak, Rasayana, Shoolprashamana*. So, it may act as anti-inflammatory, analgesic, anti-allergic, anti-oxidant and immunomodulator.
- So by the above mentioned properties drug may help in the management of inflammation, infection and do healing of the diseases.

Thus the Mode of action of *Nagaradi Ashchyotana* can be explained as follow

Administration of *Nagaradi Ashchyotana* in the lower fornix of eyes

↓

Absorption of the drug through various layers of the eyes

↓

Spread of the drug to the deeper tissues through *Sira, Srotasa* and *Sandhi* of *Netra*

↓

Due to properties of *Nagaradi Ashchyotana ingredients* like *Kandughna, Chakshushya, Rasayana, Srotoshodhaka, Aampachaka, Sothahara, Vedanasthapaka* and *UshnaVeerya*

↓

Elimination of *Dosha* occurs through *Aushadha Prabhava*

↓

Due to *Kapha Dosha Shamaka* properties

↓

Relieve in the sign and symptoms of disease *Kaphaja Abhishyanda* Like, *Kandu, Updeha, Muhurmuhursrava, Guruta* etc.

REFERENCES

1. Ashtanga Hridaya - Astanga Hridaya, Kaviraj Atridev Gupta, 14th Edition, Chaukhamba Sanskrit Sansthan, Varanasi, 2007.
2. Ashtanga Samgraha–Sharangadhara Samhita Dipika hindi vyakhyaya by Brahmananda Tripathi, 28th Edition, Chaukhamba Sanskrit Sansthan, Varanasi, 2006.
3. Bhavamishra. Bhavaprakasha with Vidhyotini Hindi Comm., Ed. by Shri Brahmashankara Mishra, Chaukhambha Sanskrita Sansthan, Varanasi, 11th edition, 2005.
4. Chakradatta of Chakrapanidatta. Vaidyaprabha Hindi commentary, Charu printers Varanasi.
5. Charaka Samhita Vidhotani Hindi tika by Pt. Kashinath Pandey and DrGorakh Nath Chaturvedi, Chaukhamba Bharati Akadami Varanasi.
6. Database on Medicinal Plant Used in Ayurveda, 1st edi., CCRAS, New Delhi, 2001.
7. Dravyaguna Vignana, Vol. 2, Chaukhambha Bharati Academy, Varanasi, 2003.
8. Dravyaguna Vijnana Part II, Gyanendra Pandey., Chaukhambha Krishnads Academy, Varanasi: 2004.
9. Indian Materia Medica by Nadakarni K.M.Vol. I & II, Ed. 3, Popular Publishers, Bombay.
10. Indian Medicinal Plants by Kirtikar & Basu. Vol. I, II & III.
11. Kashyapa Samhita of Vriddha Jeevaka., Chowkhambha Sanskrit Sansthan Varanasi, 2009.
12. Madhava Nidana (Purvardha) with Madhukosha_ Sanskrita com. by Shrivijayarakshita & Shrikanthadatta and "Vidyotini_ Hindi Comm. by Shri Sudarshana Shashtri, edited by Prof. Yadunandana Upadhyaya. Chaukhambha Sanskrita Bhavana, Varanasi, 32nd edition.
13. Madhava Nidana (Uttarardha) with "Madhukosha" Sanskrita comm. By Shrivijayarakshita & Shrikanthadatta and "Vidyotin" Hindi Comm. by Shri Sudarshana Shashtri, edited by Prof. Yadunandana Upadhyaya. Chaukhambha Sanskrita Bhavana, Varanasi, 31st edition.
14. Rasa Ratna Samucchaya. Rasavagbhata. Edited with the Suratnojjvala Hindi commentary by Kaviraj Sri AmbikadattaShastri. Chaukhambha Sanskrit series Office Varanasi 1976.