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PHYTOCHEMICAL ANALYSIS OF DRONAPUSHPI AS AN EKAMOOLIKAPRAYOGA IN THE MANAGEMANT OFKAPHAJA SHIRASHOOLA.

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ABSTRACT

Ethnomedicine played a vital role in the development of a healthy society. The mono herb therapy (Ekamoolika prayoga) effectively uses a single plant for treating a particular condition. "Malanad" coming under Western Ghats, which is one of the eight "hottest Hot-spots" of biological diversity in the world, with diverse flora which are indigenous and rarely found elsewhere in the world. Shirashoola is a very common disease in the clinical practice both in rural and in urban places. Among different types of shirashoola the kaphaja verity (Acharya-Vagbhatta) affects patients with Tandra, Shoonakshikuta, karna-kandu, Aalasya and headache persisting all around the day and may increase at night. Elimination of Kapha is the best line of treatment for this condition and Nasya considered as prime treatment modality in all type of shirashoola, is taken here. This study aims in bringing light to the use of Dronapushpi, which is abundantly available all round Malanad, This is used as an Ekamoolika prayoga through Shodhana-nasya in Kaphaja-shirashoola; considering its theekshna, ushna and kaphharana properties. Along with this the phytochemical analysis of the source plants of Dronapushpi Leucas aspera spreng and Leucas cephalotes (Roth) will also be discussed.

KEYWORDS: Ethnomedicine, Eakamoolika-Prayoga, Nasya, Dronapushpi.

INTRODUCTION

Medicinal plants are the only source for the treatment of diseases in ancient days and since then numerous herbs and plants have been recognized as a medicinal plant because of their potency to cure ailments.^[1] The importance of Ethnomedicine in the development of healthy society is still prevalent around the globe because of its effectiveness (e.g., Tibetian medicine). Even though ignored due to the misconceptions of modern society; studies emphasize ethnic medicine as an important aspect in the future of medicine. The body of existing ethnomedical knowledge has led to great developments in health care field, with rapid industrialization of the planet and loss of ethnic cultures and customs, some of this information will no doubt disappear. The newly discovered and the existing medicinal plants are being screened for many diseases and to identify significant the rapeutic importance. [2]

Shirashola has been explained by different Acharyas. Sinusitis is one of the most common disease. It is estimated that 134 million Indians are suffering from sinusitis. Most of the signs and symptoms of kaphaja shirashoola like *Tandra*, *Shoonakshikuta*, *karna-kandu*, *Aalasya* canbe correlated with the signs and symptoms of maxillary sinusitis. Due to the nidans like Rajo Dhooma sevana (atmospheric pollutents), Jalakrida (swimming),

Purovatasevana (exposure to wind and moist breeze), Madhura, Snigdha, Sheetha and Guru Ahara the occurrence of kaphaja shirashoola becomes more prevalent.

Acharyas explains that "Nasa hi shiraso dhwaram". Nasya is considered as a prime treatment modality in all types of shiroroga and also in Kaphaja shirashoola. [3] Drugs with Katurasa, Theekshna guna and Ushna veerya are considered as the best in treating Kaphaja vikaras.

The drug dronapushpi a famous ethnomedicine that grows like weed in India specially after rain. It is taken here for the treatment of Kaphaja shirashoola by taking its Rasa, Guna, Veerya and Vipaka into consideration.

OBJECTIVES

- 1. Understanding the importance of Ethnomedicine
- 2. Detail study of review of kaphajashirashoola
- 3. Understanding the action of nasya in kaphaja shiroroga
- 4. Understanding constituting the use of the source plant of dronapushpi *Leucas aspera* spreng and *Leucas cephalotes* (Roth).
- Understanding the phytochemical analysis of dronapushpi as ekamoolika in the management of Kaphaja shirashoola.

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IMPORTANCE OF ETHNOMEDICINE

India is a country with the ancient heritage of traditional medicine. The traditional medicinal practice which deals with the cultural interpretation of health and disease is called as ethnomedice. Ethno medicine played a vital role in the development of healthy society and still prevalent around the globe because of its effectiveness. The practice of Ethno medicine is a complex multidisiplinary system constituting the use of plants as primary health care for the people since millennia. According to acharya Charaka and Acharya Susruta, Indo-Aryans had great knowledge and source of medicinal plants. The information regarding the indigenous plants was gathered from shepheards and hunters.

KAPHAJA SHIRASHOOLA

It is a condition where there will be mild pain in head throughout day and aggravates at night. [4]

KAPHAJA SHIRASHOOLASYNONYMS

Kaphaja shiroroga^[5] Shleshmaja shirashoola^[6]Sleshmaja abhitapa^[7]

NIDANA

According to Acharya Charaka^[8],

- 1. Asya sukha
- 2. Swapna sukha
- 3. Guru bhojana
- 4. Snigha bhojana
- 5. Ati bhojana

RUPA

according to Acharya Charaka $^{[9]}$, Sushruta $^{[10]}$ and Vagbhata $^{[11]}$

- 1. Mandaruja
- 2. Shirogurutva
- 3. Kaphopadigdam4.Aruchi
- 5. Alasya
- 6. Karna kandu
- 7. Tandra

SAMPRAPTI

because of the above nidanas, kapha gets vitiated and gets accumulated in the Shira Pradesha leading to Kaphaja Shirashoola.

CHIKITSA

- ☐ Acharya Charaka^[12], Nasya is the best line of treatment for all Shiroroga and also explained treatment for Kaphaja Shirashoola as Gruthapana, Tikshna basti, Dahakarma, Raktamokshana,Nasya, Upanaha and Lepa.
- ☐ Acharya Sushruta^[13] Shirovirechana, Vamana, Gandusha, Achapana, Swedana, Agnikarma and Lepa.
- Acharya Vagbhata Nasya, Langhana, Vamana, Nadisweda, and Alepa.

ACTION OF NASYA IN SHIROROGA

According to Acharya Charaka, Nasa is the gateway to Shiras. The drug administered through nose as Nasya reaches to the brain and eliminates only the morbid doshas responsible for producing the disease. [15]

In Sushruta Samhita, 'Mastulungagam' (passage of brain matter/CSF through nose) is symptom mentioned in Atiyoga of Virechana Nasya. [16] This shows the relation between the nose and brain.

In Ashtanga Samgraha, it is explained that the Nasa being the doorway to Shiras, the drug administered through the nostrils, reaches Shringataka by Nasasrota and spreads in the Murdha (Brain) taking route of Netra (eyes), Shrotra (ears), Kanta (throat), Siramukhas (opening of the vessels) etc. and scrapes the morbid Doshas in supraclavicular region and extracts them from the Uttamanga. [17]

Acharya Sushruta has clarified Shringataka marma as a Shira Marma formed by the union of Siras (blood vessels) supplying to nose, ear, eye and tongue. [18]

According to modern view, the nasal delivery seems to be a favourable way to bypass the obstacles for bloodbrain barrier (bbb) allowing the directdrug deliveryin the biophase of central nervous system (CNS) active compounds. It has also been considered to the administration of vaccines. [19]

The highly vascular nasal tissues make an effective site of systemic absorption. The abundant vascular plexus permits the administered drug to get absorbed into the bloodvessels rapidly.the ppooling of nasal venous blood into the facial vein is the vascular path of transportation. It communicates through pterygoid plexus with the cavernous venous sinus. [20]

THE SOURCE PLANT OF DRONAPUSHPI: Leucas aspera

The medicinal properties of plants have been investigated due to thei potent pharmacological activities, low toxicity and economic viability. This revival of intetest in plant-derived drugs is mainly due to the current wide spread belief that green medicine is safe and more dependable than the costly synthetic drug, manyof which have adverse side effects.

Botanical description and Habitat

Leucas aspera (L.aspera) is an annual, branched, herb grows to a height of 15-60cm with stout quadrangular stem and branches. It belongs to the Labiate family. It is a common aromatic herb found in AFRICA, Asiatemperate and Asia-tropical countries.

Drona cha dronapushpi cha phale pushpa chakeerthitha

Drona pushpin guru swadhu rookshooshna vatapitta krit

II Sathikshna lavana swadupaka katvi cha bhediniI Kaphama kamala shotha thamaka swasa janthujit II

Preliminary Phyto chemical examination of L. aspera revealed the presence of triterpenoids in whole plant. [25] The entire plant is reported to contain ursolic acid, oleanolic acid and 3- sitosterol. [26]

METHOD OF ADMINISTRATION

Instill 2 drops of swarasa in each nostril, 2 times daily. (morning and evening)

(the Bhavaprakash nighandu edition of 1998 verse-272-273. pageno-463-464)

Vernacular name

Sanskrit	: Dronapushpi, Chitrapatrika
Hindi	: Goma madhupati
Kannada	: Thumbai
Malayalam	: Thumba
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R

Rasa Panchaka			
Rasa	: Katu, Lavana, Madhura		
Guna :	Guru, Ruksha, Theekshna		
Veerya: Ushna			
Vipaka	: Madhura		
•	Rasa Guna Veerya		

PHYTOCHEMICAL ANALYSIS OF L.ASPERA

Traditionally the whole plant is taken orally for analgesic, antipyretic, antirheumatic, anti- inflammatory and anti-bacterial treatment and its paste is applied topically to inflamed areas.[23]

The entire plant is also used as an insecticide and indicated in traditional medicine for coughs, cold, painful swelling and chronic skin eruption. [24]

REFERENCES

- 1. B.B. petrovska, Historical review of medicinal plants usage, Pharmacon Rev, 2012; 6: 1-5, doi:10.4103/09737847.95849
- A.G. Desai, G.N. Quazi, R.K. Ganju, M.El-Tamar, J. Singh, A.K. Saxena, et al., Medicinal plants and cancer chemo prevention, Curr. During Metab, 2008; 9: 581-591.
- Jyothimitra, editor. Ashtanga Sangraha with shashilekha commentary. 2nded. Varanasi:Chaukamba Sanskrit series, 2008; 766-
- Vagbhata, Ashtanga Hridaya edited with Vidyottini Hindi commentary commented by Kaviraj Atrideva Gupta. Published by Chaukambha Sanskrit sansthan A.H. U 23/2.
- Sushruta, Sushruta Samhita edited with Ayurveda Tattva Sandipika edited by Kaviraj Ambikadatta Shastri. Publishedby Chaukambha Sanskrit Sansthan S.SU-24/25.
- Shri Sudarshana Shastri, editor with Vijayarakshita and Srikanttadatta with Vidyotini hindi Srimadhavakara with Madhukosha Sanskrit

- commentary Part-1, Choukambha Sanskrit Bharati, Varanasi. 26th edition 1996. M.N.4/60.
- Vagbhata, Ashtanga Sangraha edited with Vidyottini Hindi commentary commented by Kaviraj Atrideva Gupta. Published by Chaukambha Sankrit sansthan A.S.U 6/27.
- Agnivesha, Samhita editrd Charaka Charakachandrika by DR. Brahmananda Tripathi. Published by Chaukambha Surabharati Prakashana Ch.S.Su-17/24.
- Agnivesha. Charaka Samhita editrd Charakachandrika by DR. Brahmananda Tripathi. Published by Chaukambha Surabharati Prakashana Ch.S.Su-17/8-10.
- 10. Sushruta, Sushruta Samhita edited with Ayurveda Tattva Sandipika edited by Kaviraj Ambikadatta Shastri. Publishedby Chaukambha Sanskrit Sansthan S.S.U-25/3-4
- 11. Vagbhata, Ashtanga Hridaya edited with Vidyottini Hindi commentary commented by Kaviraj Atrideva Gupta. Published by Chaukambha Sanskrit sansthan A.H.U 23/90.
- 12. Agnivesha, Charaka Samhita edited Charakachandrika by Dr. Brahmanand Tripathi. Published by Chaukambha Surabharati Prakashana Ch.S.Su-17/4.
- 13. Sushruta, Sushruta Samhita edited with Ayurveda Tattva Sandipika edited by Kaviraj Ambikadatta Shastri. Publishedby Chaukambha Sanskrit Sansthan S.S.U-26/17-19.
- 14. Vagbhata, Ashtanga Sangraha edited with Vidyottini Hindi commentary commented by Kaviraj Atrideva Gupta. Published by Chaukambha Sankrit sansthan A.S.U 23/90.
- 15. Agnivesha, Charaka Samhita, Vidyotini Hindi commentary by Pt. Kashinatha Shastri and Dr.Goraksha Natha Chaturvedi, SidhiSthana 2/22, Chaukambha Bharati Academy, Varanasi, Reprint, 2005; 986.
- 16. Sushruta, Sushruta Samhita edited with Ayurveda Tattva Sandipika edited by Kaviraj Ambikadatta Shastri, Chikitsasthana 40/40, Chaukambha Sanskrit Sansthan Varanasi, Edition: Reprint, 2009; 227.
- 17. Vagbhata, Ashtangasamgraha with commemtary by Kaviraj Atrideva Gupta, Sutra sthana 29/2, Chowkhamba Krishnadas Academy, Edition: Reprint, 2005; 216.
- 18. Sushruta, Sushrutasamhita, Ayurveda Tattva Sandipika Hindi commentary by Kaviraj Ambikadatta Shastri, Sharirasasthana 6/28,Chaukambha Sanskrit Sansthan Varanasi, Edition: Reprint, 2009; 75.
- 19. Pagar Swati Appasaheb et al., A reviewon intranasal drug delivery system, J. Adv. Pharm. Edu. & Res, 2013; 3(4): 333-346.
- 20. Gray's Anatomy-35th edition, pg.no.884.
- 21. Prashant KR, Dolly J, Singh KR, Gupta KR, Watal G. Glycemic properties of Trichosanthes dioica leaves. Pharm Biol, 2008; 46(12): 894-899.
- 22. Jigna P, Sumitra C. In vitro antimicrobial activities

- of extracts of *Launaea procumbens* Roxb. (Labiateae), *Vitis vinifera* L. (Vitaceae) and *Cyperus rotundus* L. (Cyperaceae) Afr J Biomed Res, 2006; 9: 89-93.
- 23. Gani A. Chemical constituents and uses. Dhaka: Asiatic Soc of Bangladesh; 2003. Medicinal plant of Bangladesh; p.277.
- Chopra RN, Nayar SL, Chopra IC. Glossary of Indian medicinal plant. National institute of science communication and information resources. New Delhi: council of Scientific and Industrial Research (CSIR), 2002; 153.
- 25. Kamat M. Singh, TP. Prelimenary chemical examination of some compounds in different parts of Leucasgenus Geobios, 1994.
- 26. Chaudhury NA, Gosh D. Insecticidal plants; chemical examination of *Leucas aspera*. J Indian chem. Soc, 1969.

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