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UNLOCKING THE PRINCIPLES AND APPLICATIONS OF *EKAMULIKA PRAYOGA* IN *SHALAKYA TANTRA*

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ABSTRACT

Ayurveda, the science of life, emphasises holistic healing through plant-based remedies. *Ekamulika Prayoga*, the use of single herbs, is valued for its simplicity and efficacy. The term combines *eka* (one) and *mulika* (herb), indicating single-drug formulations, often used with *anupana* or *sahapana*. Detailed in *Dravyaguna Vijnana*, these herbs are classified by *Rasapanchaka* and therapeutic uses. *Shalakya Tantra* one of the 8 branches of *ayurveda*, have numerous *ekamulika prayogas* explained for treating *netra, nasa, karna, mukha, kantha* and *shiro vikaras*, by administering the drugs orally as well as through various therapeutic procedures like *kriyakalpa, nasya, karnapoorana, kavala, gandhusha* and *murdhini taila*. In this conceptual study *ekamulika prayogas* of plant origin with their *raspanchaka*, its used parts, phytochemicals, pharmacological action, dose and dosage form of each herb are compiled from various authentic ayurvedic texts. It highlights the potency of *ekamulika prayoga* in attaining both *swasthya rakshanarth* (prevention aspect) and *vikara prashamanartha* (curative aspect).

KEYWORDS: *Ekamulika, Shalakya, Kriyakalpa, Murdhni taila, Karnapoorana.*

INTRODUCTION

In recent years, traditional medicine has garnered significant attention worldwide for its holistic approach to health and the vast therapeutic potential of its plant-based remedies, with single herb preparations (*ekamulika prayoga*) being particularly favoured for their simplicity and efficacy. The word *Ekamulika* comprises 2 words *eka* means single, *mulika* means root. Therefore, *ekamulika prayoga* can be interpreted as single herb formulation or single herb formulation with *anupana*(adjunct) or *sahapana*(drinking together). Ayurveda, the science of life is an extensively documented system of medicine. The complete knowledge of the *mulikas* are explained in the broad umbrella of ayurvedic texts as *dravyaguna vignana*. It primarily focuses on the *rasapanchaka*, *prayoga* of the *dravyas*, thereby unlocking the pharmacological and therapeutic properties of each *dravya*.

Ekamoolika Prayoga, the practice of using a single herb for disease prevention and management, finds its origin in ancient Vedic literature like Rigveda and Atharvaveda and is well-documented in our classical texts like *Sushruta Samhita, Charaka Samhita, Astanga Sangraha* & *Hridaya* and various *Nighantus* (Ayurvedic pharmacopoeias). This approach emphasizes the potent effects of individual *Dravyas*. *Shalakya tantra* which is one among the 8 branches of ayurveda, has numerous *ekamulika prayogas* which have been explained for treating *netra*(eyes), *karna*(ears), nasa(nose), *kanta*(throat), *mukha*(oral cavity) and *shiro*(head) *rogas*. These drugs are administered orally and through various therapeutic procedures like kriyakalpa, *nasya, karnapoorana, kavala*, *gandusha* and *murdhini taila*. *Acharya Charaka* while explaining the importance of *yukti pramana*, states that in this vast nature, nothing exists devoid of medicinal or therapeutic value, and it is the physician's skillful *yukti* that unlocks the hidden potential of each *dravya*, revealing its true therapeutic properties.[1]

So in this conceptual study *ekamulika prayogas* of plant origin with their *raspanchaka*(five factors of a *dravya*), its used parts, phytochemicals, pharmacological action, dose and dosage form of each herb are compiled from various authentic ayurvedic texts. The rich biodiversity of India, where everyday kitchen ingredients like *Haridra* (turmeric), *Shunthi* (dry ginger),*Shigru* (Drumstick) and many more *dravyas* possess potent medicinal properties. The revival of *Ekamoolika Prayoga* offers a promising path for modern, evidence-based Ayurveda. By reconnecting with this ancient wisdom, we can foster sustainable, personalised healthcare that honours the natural world.

AIMS AND OBJECTIVES

To evaluate the *ekamulika prayogas* explained in *shalakya tantra* for preventive and therapeutic aspects through *Ayurvedic* perspective.

MATERIALS AND METHODS

- Classical Ayurvedic textbooks such as *Sushrutha Samhitha, Caraka Samhitha, Astanga Sangraha, Astanga Hridaya, Harita Samhitha, Kashyapa Samhitha, Bhaishajya ratnavali, Chakradatta, Vangasena, Gada nigraha* and *Sharangadhara Samhitha* were reviewed for documenting the information on *ekamulika prayogas* in *shalakya tantra*.
- All the classical *ayurvedic* were reviewed for documenting *rasapanchaka*, parts used and dosage form and there by understanding the mode of action of each *dravya*.
- A thorough review of the research articles and published literature were done using online scientific search engines.

EKAMULIKA PRAYOGA IN *SHALAKYA TANTRA*

The single-drug administration of various herbal drugs, which are used in treating various eye, nose, ear, throat & head diseases, is presented in a tabular format, including details such as the part used, form, procedure, indications (disease) and classical references.

SL No	DRAVYA	PART USED	FORM	PROCEDURE	DISEASE	REFERENCE
1	*AMALAKI*	Fruit	*Swarasa*	*Akshi purana*	*Netra abhishyanda, Navadrik kopa*	G.N 370 Ch.D 59/5
		Fruit	*Kalka*	*Pindi*	*Pittaja abhishyanda*	Y.R 368 Sh.S.13/27
		Fruit+ Leaves	*Raskriya*	*Anjana*	*Praklinna vartma*	Su.U 12/49
		Fruit	*Payasa*	*Payasa*	*Timira*	Su.U 17/49
		Fruit	*Swarasa*	*Shira snana*	*Param Dristi Balaprada*	Van 289 Y.R 241
		Seed	*Kashaya*	*Aschyotana*	*Netra shoola*	*Tiruka* 44/20
		Fruit	*Kashaya*	*Kavala*	*Danta shoola, Dantamoola shotha*	*Tiruka* 46/1
		Leaves	*Kashaya*	*Kavala*	*Aasyapaka*	*Tiruka* 47/55
		Fruit	*Churna + Ghruta bhrusta*	*Bidalaka*	*Vata Netrashoola*	C.Ci. 26/233
		Fruit	*Churna + Ghrita bhrista*	*Vidalaka*	*Netra ruja hara*	C.Ci.26/233
2	*HARITAKI*	Fruit	*Churna*	*Orally with Guda*	*Pratishyaya*	K.S.*Pratishyaya chikitsa*
		Fruit	*Kashaya*	*Orally with Madhu*	*Kanta roga*	A.H.U.22/55
		Fruit	*Kashaya*	*Kavala*	*Asyapaka*	*Tiruka* 47/32
		Seed	*Kalka+ Madhu*	*Anjana*	*Krishnagata roga*	Su.U.12/33
3	*VIBHITAKI*	Seed	*Taila*	*Taila*	*Keshya*	A.H.S.5/60
		Root	*Churna + madhu*	*Avapeedana nasya*	*Ardhavabhedaka*	Su.U.26/33
		Root	*Churna + Ksheera+ Ghrita*	*Orally as payasa*	*Pittaja swarabhanga*	Su.U.53/13
4	*YASTIMADHU*	Root	*Ghrita*	*Seka*	*Sadhya harati vedana in Upapakshma*	Van.558
		Bark	*Churna + ghrita brista*	*Bidalaka*	*Vataja abhishyanda*	C.Ci.26/233
5	*LODRA*	Bark	*Churna + ghrita brista in dola yantra*	*Seka with kashaya*	*Parama shoola hara*	A.H.U 16/32

		Bark	*Arka*	*Aschyotana*	*Chakshushya*	*Arka Prakasha* 3/39
		Panchang	*Churna+ Ghrita*	*Anjana*	*Netrapushpa hara*	G.N.483
		Panchang	*Churna+ Madhu*	*Anjana*	*Ashrupata hara*	G.N.483
		Panchang	*Churna+ Kanji*	*Anjana*	*Naktandya hara*	G.N.483
6	*PUNARNAVA*	*Panchang*	*Churna+ Ksheera*	*Anjana*	*Kanduhara*	Y.R.*Netraroga Chikitsa* 194
		Panchang	*Churna + Madhu*	*Anjana*	*Netrasaada*	Y.R.*Netraroga Chikitsa* 194
		Panchang	*Churna + Taila*	*Anjana*	*Timira*	Y.R.*Netraroga Chikitsa* 194
		Panchang	Arka	Aschyotana	Sarva netraroga hara	Arka Prakasha 3/77
7	*HARIDRA*	Rhizome	*Ghrita*	*Tarpana*	*Nimesha*	G.N.356
		Rhizome	*Kalka*	*Kavala*	*Asyapaka*	*Tiruka* 47/62
		Rhizome	*Churna +Jala*	*Netra Prakshalana*	*Netra daha*	*Tiruka* 44/5
8	*DARUHARIDRA*	Root bark	*Kashaya + madhu*	*Seka*	*Sarva dosha prakupita netra, Sarvabhishyanda*	A.H.U.16/8
		Root bark	*Rasakriya + madhu*	*Muka pratisarana*	*Sarva mukha roga hara*	C.Ci 26/202
		Root bark	*Rasanjana*	*Anjana once in 5 or 8 days*	*Sravanartha*	C.Su.5/15
		Root bark	*Arka*	*Lepa*	*Netra roga Karna roga*	*Arka Prakasha* 3/37
		Rasanjana	*Arka*	*Aschyotana*	*Netra vikara*	*Arka Prakasha* 3/37
		Tender leaves	*Swaras*	*Aschyotana*	*Sannipataja netra roga*	Y.R*Netraroga Chikitsa*.364
		Tender leaves	*Swaras*	*Seka*	*Sarva netra rujapaha*	G.N.142 Vrn.M 61/40
		Tender leaves	*Kalka*	*Pindi*	*Kaphaja abhishyanda*	Y.R *Netraroga Chikitsa* 374
9	*SHIGRU*	Tender leaves	*Jala*	*Sweda*	*Kaphaja timira*	A.S.U 16/19
		Exudate	*Taila*	*Karna purana*	*Karna shoola*	Vrn.M 59/6
		Tender leaves	*Swarasa + Guda*	*Nasya*	*Shirashoola*	H.S.3-40-21
		Leaves	*Arka*	*Aschyotana*	*Netrya*	*Arka Prakasha* 3/58
		Leaves	*Arka*	*Nasya*	*Shirashoola*	*Arka Prakash* 3/58
		Rhizome	*Swarasa*	*Karna purana*	*Karna shoola*	Su.U 21/17
10	*ARDRAKA*	Rhizome	*Kalka + Guda*	*Nasya*	*Shirashoola*	B.R 33
		Rhizome	*Ksheerapaka*	Orally	*Nava pratishyaya*	Su.U 24/19
		Rhizome	*Kalka + Guda*	Orally	*Pratishyaya*	Su.U 24/18
11	*GUDUCHI*	Leaves	*Swarasa + kshoudra+ saindhava*	*Anjana*	*Arma,Pilla roga, Timira, Kacha, Kandu, Linganasha*	Sh.S.U 13/98
		Rhizome+ leaves	*Ghrita*	*Aschyotana*	*Kukkunaka*	Su.U 19/13
		Seeds	*Kalka + Saindhava*	*Gharshana*	*Danta roga*	H.S.45
12	*SARSHAPA*	Seeds	*Taila*	*Karna purana*	*Karna shoola, Kshweda, Nada, Bhadhirya*	Su.U 21/54 A.H.U 18/25 B.P. 64/37
		Seeds	*Kalka*	*Kavala*	*Kaphaja kantaka, Jihwa kantaka*	Ca.D.56/4 Vrn.M.98/45
		Seeds	*Kalka*	*Shirolepa*	*Kaphaja pratishyaya*	A.H.U 20/13

		Leaves	*Ghrita lipa shikhi tapta Swarasa*	*Karna purana*	*Karna shoola*	B.P 64/33
13	*ARKA*	Root	*Taila*	*Karnapurana*	*Karna shoola*	Ch.D 11/40
		Stem	*Churna*	Dhupana	Dantaharsha	Tiruka 46/37
14	*PALASHA*	Flower	*Swarasa*	*Anjana*	*Raktaja Abhishyanda*	Su.U 12/49
		Seed	*Swarasa + ghrita bhrista*	*Anjana*	*Netra vrana*	Tiruka 44/134
		Leaves	*Taila*	*Karnapurana*	*Putikarna*	G.N 3-2-63 Vrn.M 51/41
15	*JAATI*	Flower	Flower	*Akshi bandhana*	*Netra prasadana*	A.H.U 24/21
		Leaves	*Churna*	*Avachurnana*	*Mukhapaka*	B.P
16	*ERANDA*	Seed	*Tail + Ksheera*	Orally	*Vataja Timira*	Su.U 17/29
17	*GUGGULU*	Resin	*Dhuma*	*Karna dhupana*	*Karna dourgandya hara*	Su.U 21/53 Vrn.M 59/46
18	*TULASI*	*Panchanga*	*Kashaya*	*Nasya*	*Peenasa*	*Tiruka* 45/60
19	*PUNDARIKA*	Flower	*Ksheerapaka*	*Seka*	*Akshipaka*	*Van,Netraroga* 200
20	*KATPHALA*	Root bark	*Churna*	*Greya prayoga*	*Kaphaja shiroroga*	Su.U 26/21
21	*DHANYAKA*	Seed	*Kashaya*	*Seka*	*Netra daha , Raga*	*Tiruka* 44/4
		Leaves	*Kalka*	*Shirolepa*	*Indralupta*	*Tiruka* 42/119
22	*BILWA*	Leaves	*Kalka*	*Bidalaka*	*Netra shoola* *Netra shotha*	*Tiruka* 44/18
23	*VARTAKA*	Fruit	Fruit + *Sarshapa taila*	*Karna dhupana*	*Krimi karna*	Su.U 21/49
24	*TILA*	Seed	Seed	*Charvana*	*Chaladanta*	Ch.D 56/4
		Seed	*Kalka + Jala = Ksheera*	*Gandusha*	*Vataja Mukharoga*	Sh.S.U.10/8
25	*KATAKA*	Fruit	*Kalka + Karpoora*+Honey	*Anjana*	*Netra prasadana*	Sh.S.U 13/103
26	*PIPPALI*	Fruit	*Churna + Madhu*	*Kavala*	*Adhimamsa*	Su.Chi 22/20
27	*ATASI*	Leaves	*Swarasa*	*Nasya*	*Ardhavabhedaka*	*Tiruka* 42/44
28	*MOOLAKA*	Root	*Swarasa*	*Karnapoorna*	*Karna shoola*	Su.U.21/17
29	*LASHUNA*	Root	*Swarasa*	*Karnapoorna*	*Karna shoola*	Su.U.21/17
30	*KADALI*	Rhizome	*Swarasa*	*Karnapoorna*	*Karna shoola*	Su.U.21/17
31	*KAKAMACHI*	Fruit	Fruit + Ghee	*Dhupana*	*Pilla roga*	Ch.D 59/210
32	*KHADIRA*	Heart- wood	*Taila*	*Gandusha*	*Swarabedha*	Ch.D 13/7
33	*HINGU*	Exudate	*Sukoshna Niryasa*	*Mukha Dharana*	*Dantakrimi*	Vrn.M.58/37
34	*LAVANGA*	Flower	Flower	*Mukha Dharana*	*Mukha vaishadya hara*	C.Su 5/76
35	*BRINGARAJA*	*Panchang*	*Arka*	*Nasya*	*Keshya Shirorthihara*	*Arka Prakasha* 3/78
		Panchang	*Swarasa*	*Anjana*	*Naktandhya*	*Tiruka* 44/57
36	*DURVA*	*Panchang*	*Kashaya*	*Gandusha*	*Asyapaka*	*Tiruka* 47/21
		Leaves	*Swarasa*	*Nasya*	*Nasagata rakta srava*	C.Chi.4/100
		Root	*Swarasa*	*Nasya*	*Nasagata rakta srava*	C.Chi.4/100
		Bulb	Pieces	*Mukha dharana*	*Asyapaka* *Danta mula shotha*	*Tiruka* 47/34
37	*PALANDU*	Bulb	*Kalka*	*Shiropichu*	*Nasagata rakta srava*	*Tiruka* 45/4
		Bulb	*Swarasa + madhu*	*Anjana*	*Sarva dristi dosha hara*	*Tiruka* 44/124
		Bulb	*Swarasa*	Nasya	*Peenasa*	*Tiruka* 45/17
38	*JEEVANTI*	Leaves	*Ghrita*	Orally	*Naktandya*	A.H.U 13/89
39	*KARAVEERA*	Leaves	*Swarasa*	*Lepa* on closed eyes	*Abhishyanda*	Ch.D 59/7.
		Leaves	*Swarasa*	*Pralepa*	*Indralupta*	A.H.U 24/29
42	*SHATAVARI*	Root	*Payasa*	Orally	*Timira*	Su.U 17/49

43	*KAPIKACHU*	Root	*Kalka* + Honey	*Anjana*	*Kapha vidagha drsti, Pitta vidagadha drsti*	Su.U 17/8
44	*KAKAMACHI*	Fruit	*Kalka + Ghrita*	*Dhoopana*	*Pilla roga*	*Van*546,61-243
45	*KANTAKARI*	Root	*Kashaya*	Orally	*Vataja abhishyanda*	Su.U 9/11
47	*KUMKUMA*	Stigma	*Ghrita bhrista + sharkara*	*Nasya*	*Ardhavabedhaka*	Ch.D.60/40 Sha.S.U 8-32
48	*LAKSHA*	Resin	*Churna + Madhu*	*Mukha pratisarana*	*Dantasharkara*	Ch.D.56/26
49	*MADHUKA*	Flower	*Swarasa*	*Navana nasya*	*Pitta shiroroga*	C.Ci.26/179
		Resin	Churna	*Virechanika nasya*	*Kaphaja shiroroga*	Ch.D 60/17
		Resin	*Churna + madhu*	*Anjana*	*Shuklagata roga*	Su.U.12/33
50	*MALLIKA*	Flower	Petals	*Bandhana*	*Netra rakshana*	A.H.Su 24/21
		Fruit	*Churna + madhu*	*Anjana*	*Nakthandhya*	B.P 63/231
51	*MARICA*	Fruit	*Churna + Dhadi*	*Anjana*	*Nakthandhya*	A.H.U13/84 Ch.D 59/ 161
		Fruit	*Churna + guda*	Orally	*Nava pratishyaya*	Vrn.M.60/21
52	*MUSTAKA*	Rhizome	*Churna + Chaga mutra*	*Anjana*	*Netra pushpa*	G.N.3-3-200
53	*NARIKELA*	Liquid	*Jala*	Orally	*Anantavata*	Ch.D 60/46
		Root	*Kashaya*	*Gandusha*	*Danta roga*	H.S 3-46-14
54	*NIMBA*	Leaves	*Kalka*	*Pindi*	*Kapha-pitta abhishyanda*	Sh.S.U 13/29
		Leaves	*Taila*	*Nasya*	*Khalitya, Palitya*	A.H.U 24/34 Sh.S.M 9-154
55	*MAHANIMBA*	Fruit	*Kalka*	*Pindi*	*Pittaja netra roga*	Sh.S.U 13/27
56	*ASHWATHA*	Leaves	*Patra + Taila = Angara tapta*	*Taila*	*Karnapurana*	Ch.D.57-7
57	*DADIMA*	Flower	*Swarasa*	*Nasya*	*Nasapravritta Rakta*	C.Chi.4/100
58	*DHATTURA*	Leaves	*Swarasa*	*Shirolepa*	*Indralupa*	A.H.U 24/30
59	*GUNJA*	Root	*Churna* + Goat's urine	*Anjana*	*Timira*	G.N.3-3-377
60	*INDRAVARUNI*	Seed	Seed + *Taila*	*Shiro Abhyanga*	*Kesha Krishnee karan*	Sh.S.U. 11/26
61	*JAMBU*	Leaves + Fruit	Leaf + fruit boiled Liquid	*Karnapurana*	*Krimikarna*	G.N. 3-2-66
62	*SNUHI*	Latex	Latex	*Lepa*	*Galashundi*	Vrn.M.58/49

G.N-Gadanigraha; Y.R-Yoga Ratnakara; Ch.D-Chakradatta; Su.U-Sushruth Samhita Uttaratantra; Su.Chi-Sushruth Samhitha Chikitsasthana; Van-Vangasena; C.Chi-Caraka Samhita Chikitsasthana; C.Su-Caraka Samhita Sutrasthana; K.S-Kashyapa Samhita; A.H.U-Astanga Hridaya Uttaratantra; A.H.Su-Astanga Hridaya Sutrasthana; A.S.U-Astanga Sangraha Uttaratantra; H.S-Harita samhitha; B.R-Bhaishajya Ratnavali; Sh.S.U-Sharangadhara Samhita Uttara;Vrn.M-Vrinda Madhava; B.P-Bhava Prakasha; Tiruka- Swayam vaidhya.

DISCUSSION

Ekamoolika Prayoga, the use of single herbs in treatment, has been a cornerstone of *Shalakya Tantra*, the *Ayurvedic* discipline dealing with diseases of the *Urdhwa Jatru*. Various classical texts describe the application of single herbs in managing *Urdhwa Jatru Gata Vikaras*, including *Kapala Rogas*. A closer look at the pharmacology of these herbs reveals a range of beneficial activities, including antioxidant, anti-inflammatory, analgesic, and antimicrobial properties. Here are some research articles which explore the pharmacological effects, phytochemical constituents & therapeutic applications.

- Amalaka -A study found that Pyruvate & Vitamin C present in Emblica officinalis found to inhibit aldose reductase and reduce lens sorbitol levels.[2] Another animal study states that Emblica officinalis is capable to induce lens regeneration in the frog.[3] Reduces blood glucose level both in normal and alloxan- induced rats, thereby causing delay in diabetic cataract due to the presence of tannoid content. *P. emblica* possesses 5*α*- reductase inhibitory activity which eventually promotes hair growth.[4] Treatment with purified EO extract preserves mitochondrial and cellular health and function in human AMD RPE cybrids, implying that EO mitigates ageing-related damage in AMD.[5]

- Haritaki - A mouse model of experimental dry eye has shown that Gallic acid not only prevents and inhibits the apoptosis of corneal epithelial cells but also diminishes the levels of inflammatory agents in both the cornea and conjunctiva.[6] The 10% solution of the extract used in mouth rinsing show inhibition of the salivary bacterial count and glycolysis of salivary bacteria for up to 90 minutes post rinsing.[7] The 10% mouth rinse of T. chebula extract was found to be beneficial in neutralizing salivary pH as well as gingival irritation and microbial plaque.[8]
- Vibhitaki - A 70% methanol extract has effectively reduced free radicals and reactive oxygen species in vitro studies and increased the activity of antioxidant enzymes such as superoxide dismutase, catalase and glutathione reductase in mice.[9]
- Yastimadhu - In a clinical trial of 32 cases of allergic conjunctivitis, Eye drops containing 5 % sodium glycyrrhizinate or the 8-12 % suspension of glycyrrhetic acid or 10-30% herb extract, 3 or 4 times daily for 2-7 days, were effective in eye inflammatory conditions such as Herpetic keratitis, keratoconjunctivitis and fascicular keratitis.[10] Study showed that patients who used G. glabra gum paint at a 10% concentration experienced a considerable reduction in gingival bleeding.[11] The licorice powder and its extract are extremely useful in treating sore throat.[12]
- Lodra - One study found that an extract of the plant's bark has significant anti-inflammatory activity, anti-oxidant, and wound healing activity.[13]
- Punarnava – A study was conducted on BALB/c mice model to check the immunomodulatory activity, result showed that Punarnavine enhanced the stem cell proliferation, differentiation of stem cells and antibody formation process. It also suppressed the pro inflammatory cytokines in Balb/c mice.[14]
- Haridra - Lal et al. reported an improved vision in patients with chronic anterior uveitis who were administered oral capsules with 375 mg/capsule of curcumin t.i.d. along with local cycloplegics (e.g. atropine), decreased aqueous flare and keratic precipitates were observed after treatment.[15] A study demonstrated the effectiveness of intranasal nanomicelle curcumin in corneal epithelial/nerve wound healing in STZ-induced model of diabetic mice with corneal epithelium abrasion. In this study, curcumin recovered the enhanced accumulation of ROS, decreased free radical scavengers, decreased mRNA expression of neurotrophic factors, and increased mRNA expression of proinflammatory cytokines in the cornea.[16] A reported that curcumin had the potential of inhibiting ovalbumin-induced conjunctivitis caused by allergy in a mouse model. It suppressed the activation levels of inducible nitric oxide synthase (iNOS) production in mouse conjunctiva and inhibited immunoglobulin E (IgE)-mediated and eosinophil-dependent conjunctival inflammation.[17]
- Daruharidra – In an invitro study, tropical instillation of aqueous extracts of B. aristata showed anti-inflammatory activity against endotoxin induced uveitis in rabbits.[18]
- Shigru has antioxidant properties that helps to rejuvenate the eye cells & tissues, preventing damage from oxidation & lipid oxidation.[19]
- Ardhraka shows potential in alleviating allergic rhinitis & reducing advanced glycation end product, with its active compound 6-gingerol modulating immune responses and inhibiting AGE formation.[20,21]
- Guduchi - Clinical trials have shown that tablets containing Tinospora cordifolia can reduce eosinophil & neutrophil counts in patients with allergic rhinitis.[22] Procured stem extract acts on, prevention of retinal oxidative stress, restoration of antioxidant enzyme levels & reduction in the angiogenic markers, vascular endothelial growth factor (VEGF) & protein kinase C (PKC) that are increased in diabetic retina.[23]
- Sarshapa dietary leaf extract delays cataract progression in rats. Mustard based toothpaste reduces plaque & gingivitis, improving oral hygiene.[24,25]
- Arka - A study was also observed in C. gigantea's antifungal activity. Parts of C. gigantea that are often tested as antifungal are leaves.[26] Researchers found that the DPPH of radical scavenging activity in C. gigantea was as high as 37- 85.17% in the leaves. Flavonoids and triterpenoids also increase the rate of wound contraction and epithelial formation.[27]
- Palasha - The leaves are used for eye infections. Ayurveda's Siddha Yoga Sangraha mentions palasha distillate for managing cataract.[28]
- Jati - The results showed that JTE effectively attenuated the UVB-induced cell injury by reducing the excessive intracellular ROS generation, and inhibiting the expression of apoptotic genes such as Bax, Caspase-3/9.[29] Jasmine oil is beneficial for hair because of its anti-lice properties, and it can treat scalp infections very effectively.[30] A study found that a mucoadhesive formulation containing Jasminum grandiflorum leaves helped to heal oral wounds in animals by repairing and reconstructing connective tissue and epithelium.[31]
- Guggulu's volatile oil is effective. Its gum has antimicrobial properties against gram-positive bacteria & some resistance to gram-negative bacteria.[32]
- Tulasi - The aqueous extract of fresh leaves of OS delayed the process of cataractogenesis in experimental models of cataract.[33] A clinical trial has demonstrated that rinsing with tulsi is as effective as 0.2% Chlorhexidine and Listerine in reducing the levels of Streptococcus mutans, and that a herbal mouthwash that includes tulsi is preferred for its taste and convenience.[34]

- Neferine in pundarika inhibits human retinoblastoma cells (WERI-Rb-1) reducing Ki-67, surviving & VEGF, showing anti-invasive effects.[35]
- Dhanyaka leaf extract as eye drops may inhibit smallpox/measles. Coriander leaves help with mouth sores, toothache, gum bleeds. Linalool in coriander has antioxidant, neuroprotective effects.[36]
- Bilwa - The percentage of free radical inhibition is higher in unripe fruit than that of ripe fruit. Intraocular pressure (IOP) lowering activity has been observed in rabbits. From baseline IOP a reduction of 22.81% has been seen with fruit extract at a dosage of 1%. This may be compared to timolol. The chloroform extract of bael leaf at a dosage 150 and 300 mg/kg bodyweight has been used against cataract by increasing glutathione, catalase, and superoxide dismutase and inhibiting lens aldose reductase (AR) and lowering osmotic stress.[37]
- Vartaka lowers IOP by 25% & causes miosis in humans, potentially helping glaucoma.[38]
- Tila oil was significantly more effective for treating nasal mucosa dryness due to the dry winter climate than isotonic NaCl solution.[39]
- Kataka has the lignan glycosides (vanprukoside, strychnoside, and glucopyranoside) with strong antioxidant properties.[40]
- Pippalai modulates immunity by affecting T lymphocytes in a dose-dependent way, boosting T cells.[41]
- Atasi has dose-dependent pain relief like morphine, potentiallyworking as an analgesic & anti-inflammatory.[42]
- Mulaka's RsAFP2 triggers self-destruction of Candida albicans fungus by activating certain protein.[43]
- Lashuna extract kills Gram-positive and Gram-negative bacteria such as Staphylococcus, Streptococcus, E coli, Salmonella & fungi like Candida, Cryptococcus. Allicin in garlic does this via allinase enzyme activity.[44]
- Kadali shows antibacterial activity Gram positive(L. acidophilus ad S.aureus) and Gram negative (E.coli, P.aeruginosa) bacteria.[45]
- Kakamachi's water extract has strong anti-oxidative activity due to its several anti oxidants like gallic acid, PCA, caffeic acid, catechin, epicatechin & rutin.[46]
- Khadira's bark has antioxidant, astringent, anti-inflammatory, antibacterial, & antifungal properties. Its extract is used for oral hygiene(mouthwash for gums, sore throat, gingivitis, dental issues). Terpenes in leaves fight microbes.[47]
- Hingu has antioxidant, antiviral, antifungal, cancer-prevention, anti-diabetic, antispasmodic, hypotensive & molluscicidal effects.[48]
- Lavanaga oil as a paste treats aphthous ulcers by killing bacteria, fungi & larvae. It also reduces plaque on teeth.[49]
- Bringaraja is widely used as antioxidant, analgesic, anticancer, antihyperglycemic, anti myotoxic & immunomodulator. E. alba extracts promote hair growth in albino rats.[50]
- Palandu - A study found that topical onion juice can mitigate morphological alterations of the cornea in aged male rats. The application of topical onion juice is capable of improving ageing alterations in the cornea of the rat. Onion juice can improve corneal ageing by lowering intraocular pressure (IOP), increasing tear secretion, and restoring corneal integrity.[51] Corneal haze suppression- Onion extract may suppress corneal haze development by blocking TGF-β1 signalling cascades.[52] A study has demonstrated that instillation of onion juice into rat eyes can effectively prevent selenite-induced cataract formation.[53]
- Nimba extract dental gel reduced plaque & bacteria in a 6-week study vs. chlorhexidine gluconate(0.2% w/v)mouthwash.[54]
- Maricha showed anticataract effects in vitro against glucose-induced cataractogenesis in goat lenses at piperine 60µg/ml.[55]
- Dadima's leaf extract (250-1000 µg/ml) showed anti-cataract activity in goat lens via aldose reductase inhibition, reduced oxidative stress & boosted antioxidant defence.[56]
- Dhatura – methanol leaf extract triggered fast hair growth in 5 days, filling shaved areas in 13 days. Leaf & flower extracts induce active hair growth cycles with finer, denser hairs.[57]

Administion of single herbs can be done in various dosage forms, such as *Churna*, *Swarasa*, *Kalka*, *Kwatha*, *Ghrita*, *Taila*, and *Ksheerapaka*, catering to different needs and conditions. Moreover, they can be administered through multiple routes, including oral, nasal, and local application, allowing for targeted treatment. In classical texts, some herbs are specifically mentioned for *Netra Rogas* (eye diseases) and are used as single drugs with particular *anupanas* (vehicles). This highlights the potency of these herbs in their single form, as seen with *Punarnava*. The targeted action of these single herbs enhances their efficacy in disease management.

The use of *ekamulika prayoga* offers several advantages, including targeted action for enhanced efficacy, easy procurement and preparation, cost-effectiveness, and effortless administration. It collectively ensures effective, simplified dosing and improves patient compliance. By embracing *Ekamoolika Prayoga*, practitioners can tap into the potential of single herbs to provide effective, efficient, and sustainable treatment options for various diseases, particularly those related to the upper body parts.

CONCLUSION

Ekamoolika Prayoga in *Shalakya Tantra* offers a promising approach for both *Swasthya rakshana* (health maintenance) and *Vikara prashamana* (disease

management). The challenges of procuring quality raw materials for complex formulations, single herb therapies provide a practical solution due to their ease of procurement, preparation, and administration.

The efficacy of single *dravyas* highlights their potential as effective treatment options. To fully leverage this potential, future directions should focus on conducting clinical trials to validate efficacy and safety, standardising and quality controlling of the single herb preparations, educating and training practitioners, and researching pharmacological and therapeutic aspects of each drug.

By exploring and scientifically validating classical *Ekamoolika Prayogas* and folklore remedies, we can unlock new avenues for sustainable and effective healthcare solutions.

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