

ANALYTICAL STUDY OF VASANJANA

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ABSTRACT

Shushkakshipaka is a disease of eye mentioned by *Acharya Sushruta* and as well as *Acharya Vagbhata* under *Sarvagata rogas*. *Anjana* is one of the procedure among the *Kriyakalpa*, the therapeutic measure mentioned by our *Acharyas*. It was extensively and frequently used in ancient times by *Acharyas* for the treatment of *Netra rogas* and also it has been advocated in *Dincharya (swasthavrita)* to keep the eyes healthy and free from disease. *Vasanjana* is the drug mentioned in *Sushruta Samhita*. *Vasanjana* was prepared by method described in *Ayurvedic* text. *Matsya Vasa* has *Madhura Rasa* which acts as *Vata-Pitta Shamak*, *Guru Guna* which counters the *Vata*, *Ushna Virya* it is *Vata Shamak* and has *Madhura Vipaka* which counters the *Vata-Pitta dosha*. The purpose of the present study is to analyze *Vasanjana* in *Shushkakshipaka roga*.

KEYWORDS: *Shushkakshipaka, Anjana, Vasanjana, Matsya Vasa.*

INTRODUCTION

Eye is the most significant sense organ. As long as there is a desire for living, so long all out efforts should be made always by men to protect the eyes; because for the blind man, night and day are same; all the things for this world are useless though he might have money.^[1] In *Bhagvata Geeta*,^[2] in conversation with *Arjuna*, Lord *Shri Krishna* proclaimed the eye "*Netra Pradhanam Sarveindriyam*" as the most precious gift of humans given by almighty.

According to Ayurveda, the eyes are more crucial to human life than any other sense organ. As a result, Ayurveda has extensively covered both how to preserve the health of the eyes and every condition that affects them. The *Shushkakshipaka*, which is compared to dry eyes in modern medicine, has been identified as one of several eye illnesses that have been diagnosed by both modern medicine and old Ayurvedic texts. It is one among *Sarvagata Netra Rogas* mentioned by *Acharya Sushruta*,^[3] as well as *Vagbhata*,^[4] in detail in their treatise. *Matsya Vasa* has *Madhura Rasa*,^[5] which acts as *Vata-Pitta Shamak*, *Guru Guna* which counters the *Vata*, *Ushna Virya* it is *Vata Shamak* So present study is aimed to see the effect of the *Vasanjana* in the *shushkakshipaka*. *Vasanjana* is the drug mentioned in *Sushruta Samhita*.

AIMS AND OBJECTIVES

1. To analyse the physical or the organoleptic character

of the drug.

2. To find out the pH, heavy metal content and the microbiological study of the *Vasanjana* prepared by the classical method.**Collection of Drugs** - The herbal raw drugs were collected from Anamika pharmacy sidcul Haridwar, Uttarakhand and animal product collected from market.**Identification and Authentication:** The raw drugs were identified and authenticated by *Dravya Guna* and *Ras shastra* department of Gurukul Campus Haridwar Uttarakhand Ayurved University.Method of preparation of *Vasanjana*

- *Vasa (Matsya fat)* was taken and melted it on controlled flame.
- Melted Fat was filtered through muslin cloth.
- In filtered fat *Shunthi Choorana* and *Saindhava Lavana* in equal amount were mixed and *Mardana* (frolement) was done till it became semi solid consistency of the ointment.
- The Formed ointment was packed in 15mg sterile container in sterile condition.

Contents of *Vasanjana*The Contents of *Vasanjana*

1. *Matasya Vasa*
2. *Shunthi Choorana*
3. *Saindhava Lavana*

Rohita Matasya Vasa^[6]**Binomial name** –Labeo rohita**Family**-Cyprinidae**Ayurvedic properties****Rasa** –Madhura**Guna**- Guru**Virya** – Ushana**Vipaka** – Madhura**Karma** – Chakshushya, Svedakaraka, Urdhava jatrugata roga hara.**Gana**-Matasya Varga (Bhav.P)**Pharmacological action** – Protein-9.53%, Lipid-2.9%, Vit B12, Folicacid, VitA, Vit E, omega-3 fatty acid.**Part to be use** – Vasa**Saindhava Lavana**^[7]**English name**- Rock salt**Mineral name** – Halite**Chemical formula** – NaCl**Synonyms**-Saindhava Namak, Saindha Noun, Lahouri Namak, Sheet Shiv, ManiMantha, Sindhuj.**Ayurvedic properties****Rasa** –Lavana**Guna**- Laghu, snigdha**Virya** – Sheeta**Vipaka** – Madhura**Karma** –Tridosahara, chakshushya**Gana**- Haritkyadi Varga(Bhav.P)**Pharmacological action** – Antiseptic, antiviral, anti - ulcer, anti –poisonous.**Shunthi**^[8]**English name** – Dry ginger**Latin name**- Zingiber officinale**Family** – Zingiberaceae**Gana** – Pippalyadi, Trikatu(Su.S), Deepaniya, Shoolprashamana, Trishnanighrahan (Ch.S), Haritkyadi Varga (Bhav.P)**Synonyms** –Nagar, Mahaushadha, Vishvabhaishaj, Shringber, Ushna,**Ayurvedic properties****Rasa**- Katu**Guna** – Laghu, Snigdha**Veerya** – Ushna**Vipaka** –Madhur**Doshagnata** –Kapha-Vata Shamaka**Karma** – Shothahara, Vednasthapana, Shoolprashamana Sheetaprashamana, Kaphaghna, Sroto Shodhaka.**Chemical properties** –Zingiberene, zingiberol, oleo-resin, gingerin, gingerol, gingerone.**Pharmacological action**-Anti inflammatory, anti oxidant, antimicrobial.**Part to be used** – Kanda**Table 1: Ingredient of Vasanjana.**

Dravya	Family	LatinName	Dosha Shamkta	Karma
Matasya Vasa			Vata Shamaka	Chakshushya, Sweda Karaka
Saindhava Lavana		Sodium chloride	Tridosha Shamaka	Lekhana Netrarogaghna, Vrana Prashamanam, Deepan, Rochana, Sukshma
Shunthi	Zingiberaceae	Zingiber officinale	Vata-Kapha Shamaka	Shothhara, Vednasthapan, SrotoShodhaka

Table 2: Pharmacodynamics of Vasanjana.

DRAVYA	RASA	GUNA	VIRYA	VIPAKA	PART USED
Shunthi	Katu	Laghu, Snigdha	Ushna	Madhura	Kanda
Rohu Matsya	Madhura	Guru	Ushna	Madhura	Vasa
Saidhava Lavana	Lavana	Laghu, Snigdha	Sheeta	Madhura	

Table 3: Organoleptic Properties of Vasanjana.

ORGANOLEPTIC PROPERTIES	VASANJANA
ROOPA (COLOUR)	Black
RASA (TASTE)	Bitter
GANDHA (SMELL)	Characteristic

Table 4: Physio- Chemical Analysis of Vasanjana.

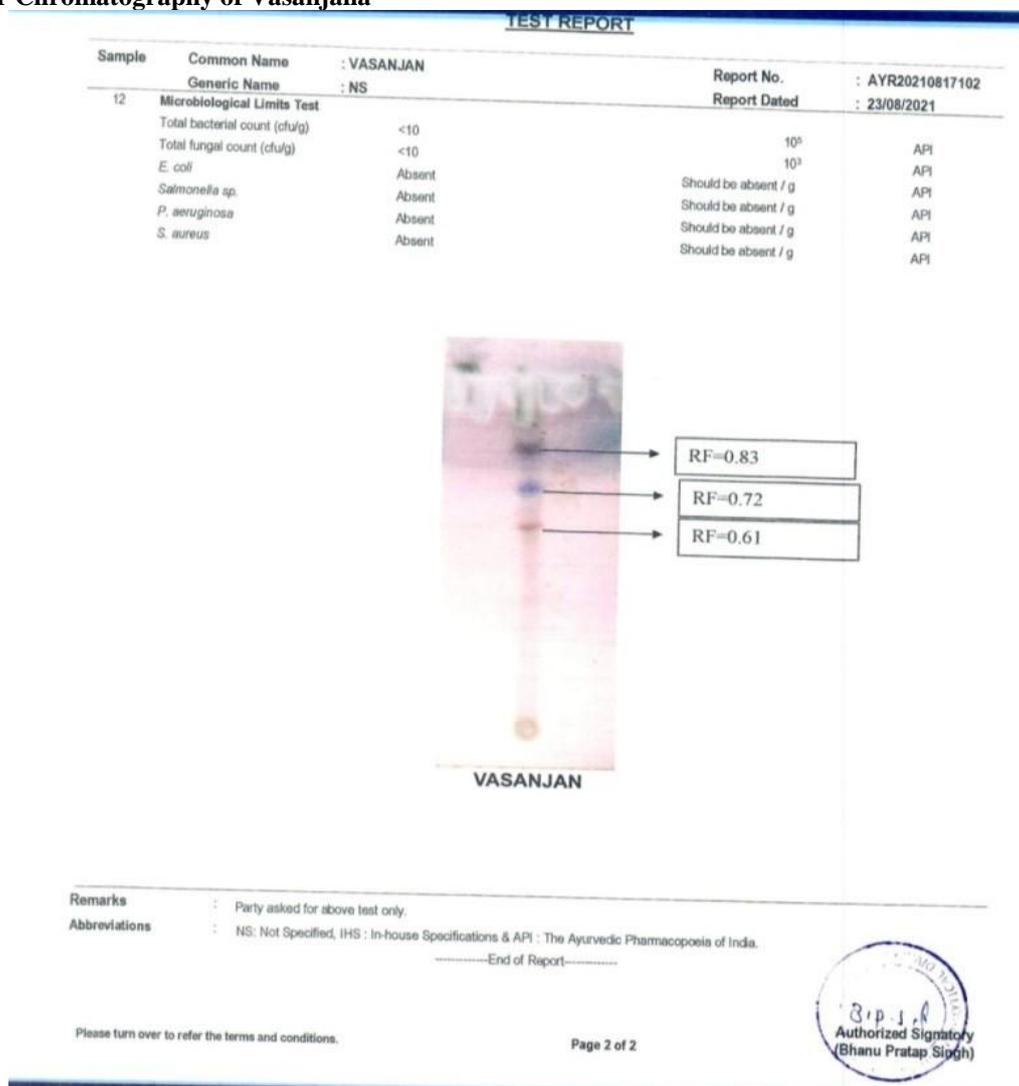
PARAMETERS	VASANJANA
pH	6.47
LOSS OF DRYING	15.21
TOTAL ASH	11.29
ACID INSOLUBLE ASH	0.60
ALCOHOL SOLUBLE EXTRACTIVE	35.13
WATER SOLUBLE EXTRACTIVE	12.06

Table 5: Microbiological Limit Test.

MICRO ORGANISM	VASANJANA
TOTAL BACTERIAL COUNT (CFU/G)	<10
YEAST AND MOULD COUNT (CFU/G)	<10
E.COLI	Absent
S. AUREUS	Absent
P. AERUGINOSA	Absent
SALMONELLA SP.	Absent

Table 6: Heavy Metals in *Vasanjana*.

HEAVY METALS	VASANJANA
LEAD (PB) PPM	3.96
ARSENIC (AS) PPM	<0.05
CADMIUM (CD) PPM	0.10
MERCURY (HG) PPM	0.42

Thin Layer Chromatography of *Vasanjana*

TEST REPORT						
Sample	Common Name	: VASANJAN			Report No.	: AYR20210817102
	Generic Name	: NS			Report Dated	: 23/08/2021
Batch/Lot No.	Pack Size	Mfg. Date	Exp. Date	Batch Size	Sample Quantity	
NS	NS	NS	NS	NS	50ml	
Condition (if provided)	: NS		Sample reference	: NS		
Sample Manufactured By	: NS			Mfg. License No. of Customer	: NS	
Sample Supplied By	: NS					
Sample Submitted By (Name & Address of Customer)	: Dr. Tribhuvan, PG Scholar UAU, Rishikul Ayurvedic Campus, Haridwar (U.K.)					
Sample received on	: 17/08/2021	Analysis started on	: 17/08/2021	Analysis completed on	: 23/08/2021	
Reference to Protocol	: In-house Specifications.					
S. No.	Test Parameters	Results	Specifications		Method Reference	
			Minimum	Maximum		
01	Description	A light brown coloured semi solid mass.			Visual	
02	Identification (by TLC)	Picture attached.			API	
03	Organoleptic Tests					
	Appearance	Black			Visual	
	Colour	Black			Visual	
	Taste	Bitter			Organoleptic	
	Odour	Characteristic			Visual	
05	pH (1%)	6.47			API	
06	Loss on drying (%w/w)	15.21			API	
07	Total ash (%w/w)	11.29			API	
08	Acid insoluble ash (%w/w)	0.60			API	
09	Alcohol soluble extractive (%w/w)	35.13			API	
10	Water soluble extractive (%w/w)	12.06			API	
11	Heavy Metals					
	Lead (Pb) ppm	3.96		10.0	API	
	Arsenic (As) ppm	<0.50		3.0	API	
	Cadmium (Cd) ppm	0.10		0.3	API	
	Mercury (Hg) ppm	0.42		1.0	API	

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Authorized Signatory
(Bhanu Pratap Singh)

RESULT AND DISCUSSION

The pharmacological analysis of the drug was prepared on the final form of the drug i.e the *Vasanjana (anjana)*. The analytical study carried deals with both the physical and the chemical properties of the drug prepared. All the values found were in their normal limits as described in the *Ayurvedic Pharmacopoeia of India (API)* indicating the drug to be safe for using in the *SHUSHKAKSHIPAKA*.

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