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Review Article

REVIEW OF SNUHI (EUPHORBIA NERIFOLIA LINN.) W.S.R. TO ITS RASAPANCHAKA AND KARMA

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ABSTRACT

Snuhi (Euphorbia nerifolia Linn.) is a large branched, erect, glabrous, succulent, xerophytic shrub occurring wild on rocky ground throughout central India and extensively grown as a hedge plant. Euphorbia nerifolia Linn. belongs to family Euphorbiaceae, commonly known as Sudha, Snuk in Sanskrit; Thuhar, Sehunda in hindi and Thor, Kantalo in Gujarati. Snuhi, Snuhi ksheera and its compound formulations are widely used in Ayurvedic classics to treat vitiated conditions. It possesses Katu-Tikta Rasa (taste), Guru-Tikshna Guna (properties), Ushna Virya (potency) and Katu Vipaka. It's Rasapanchaka and therapeutic properties are explained in different Samhita and Nighantu. It has various proved pharmacological actions like Immunomodulatory, wound healing, Anti-Bacterial activity, Hepatoprotective activity, Anti-inflammatory, Analgesic, Antioxidant, Diuretic, Antipsychotic activity, Anti-diabetic and anti-hyperlipidemic activity. Snuhi Kshara is prepared by processing the ash of Snuhi Panchanga and it is used for various therapeutic purposes. In present study, an attempt to collect information regarding Snuhi and its Pharmacological activities from available classical literature and previous research articles in a systematic manner, which can be useful in conducting further clinical trials.

KEYWORDS: Snuhi, Euphorbia Nerifolia, Pharmacological action, Rasapanchaka.

INTRODUCTION

n Ayurveda, substances of natural origin, including whole plant or their part, animal parts and minerals are used as medicine either alone or in combination. Snuhi and its compound formulations are widely used in Ayurvedic classics to treat vitiated conditions. Snuhi (Euphorbia nerifolia Linn.) is a large branched, erect, glabrous, succulent, xerophytic shrub occurring wild on rocky ground throughout central india and extensively grown as a hedge plant 11. Euphorbia nerifolia Linn. belongs to family Euphorbiaceae, commonly known as Sudha, Snuk in Sanskrit ; Thuhar, Sehunda in hindi and Thor, Kantalo in Gujarati [ii]. Rasaratnasamucchaya mentioned eleven types of Upavisha and Snuhi is one among them [iii]. Upavisha are the group of drugs which were less toxic in nature and not so lethal but produce certain toxic symptoms on consumption. According to Acharya Charaka even an acute poison becomes an excellent drug if it is administered properly and vice-versa [iv]. According to Ayurveda it is clasiified under Sthavara Visha Varga, and Upavisha Varga. According to modern, it is classified as Irritant organic vegetative poison. Brihat trayi highlighted its importance and categorized under Virechana, Shat Shodhana Vriksa, Ksirtraya; Adhobhagahara, Shyamadi and Nikumbhadi (Virechana) Varga respectively [v]. Acharya Charaka mentioned it in Virechana Dravya and give its twenty Virechana formulations in Sudha Kalpa Adhyaya of Kalpasthana [vi]. Snuhi Kshara which is prepared by processing the ash of Snuhi Panchanga [vii] is used in Arsha, Kustha and Bhagandara. It's

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Rasapanchaka and therapeutic properties are explained in different *Samhita* and *Nighantu*. Hence, in this article an attempt has been made to collect information regarding *Snuhi* and its Pharmacological activities from available classical literature and previous research articles in a systematic manner, which can be useful in conducting further clinical trials.

Aim of Study:

To review the Pharmacological action (*Rasapanchaka*) and *Karma* of *Snuhi* (Euphorbia nerifolia Linn.)

MATERIALS AND METHODS

In this article, information of *Rasapanchaka* (Pharmacological action) are compiled and analyzed from *Rajanighantu*, *Bhavaparkasha nighantu*, *Madanpal nighantu*, *Dhanvantari nighantu*, *Priya nighantu*, *Nighantu Ratnakara*, *Nighantu Adarsha* and Ayurvedic Pharmacopeia of India.

 Guna
 : Guru, Tikshana [viii].

 Vipaka
 : Katu [ix]

 Virya
 : Ushna [x].

 Karma Acc to A.P.I: [xi]

 Tikshnavirechana, Bhedana and Aama-kapha-vata hara

Chemical Constituents:

Resin, gum and triterpenes [xii].

Major : Cycloartenol, euphol

Others : n-Hexacosanol, euphorbol hexacosanoate, pelargonin 3, 5diglucoside, tulipan 3,5 diglucoside. 12 -deoxy-4B-hydroxyphorbol-13dodecanoate-20-acetate, friedelan-3 alpha-ol, friedelan-3beta-ol, glut5(10)-en-1-one, 24-methylenecycloartenol, neriifolione, nerifoliol, nerifoliene, taraxerol ^[xiii].

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Pharmacological Activities:

- Analgesic activity [xiv]
- Anti-inflammatory activity [xv]
- Antioxidant activity [xvi]
- Anti-Bacterial activity [xvii]
- Antipsychotic activity [xviii]

- Anti-diabetic and anti-hyperlipidemic activity [xix]
- Anti-carcinogenic activity in renal carcinogenesis [xx]
- Diuretic activity [xxi]
- Hepatoprotective activity [xxii]
- Immunomodulatory activity [xxiii]
- Wound healing activity [xxiv]

Table No. 1: Showing Rasa of Suhi in different classical texts

	RASA	R.N	M.N	K.N	D.N	P.N	N.R	B.N	N.A	A.P.I
	KATU	-	+	+	-	-	+	+	+	+
	TIKTA	-		+	+	-	-	-	+	+
AT	Deinsigherster	MN Mada		ALL IZ NO	lead day. Non	Lante DN	Dhamman	and ada has		

R.N –Rajanighantu, M.N- Madanpal nighantu, K.N- kaidev Nighantu,D.N-Dhanvantari nighantu, P.N- Priyanighantu, N.R- Nighantu Ratnakar, B.N- Bhavaparkash nighantu, N.A- Nighantu Adarsha,A.P.I- Ayurvedic Pharmacopeia of India.

Table No. 2: Showing Therapeutic uses of Snuhi in different classical texts.

Sr. No.	Name of Classical text	Therapeutic Uses					
1	Charak Samhita ^[xxv]	Pandu, Udarroga, Gulma, Kushtha, Dushivisha, Shavathu and Madhumeha.					
2	Sushruta Samhita [xxvi]	Dushtavrana, Arsha, Bhagandara, Kushtha and Udarroga.					
3	Yogratnakara ^[xxvii]	Rechana, shulaghana, Ashthilika, Adhaman, Gulma, Udararoga, Pliharoga, Kushtha, Unmada, ashmari and Panduroga.					
4	Raja nighantu ^[xxviii]	Pitta disorder, Poisons, Kustha, Vata disorders, Prameha. Snuhi milk is indicated in Vataroga, poisons, adhmaan, Gulmaroga and Udararoga.					
5	Madanpal nighantu ^[xxix]	Shoola, Aam, Asthilika, Adhaman, Gulma, Udararoga, Vataparkopa, Dushivisha, Plihavriddhi, Kustha, Unmada, Ashmari and Pandu.					
6	Kaiyadeva Nighantu ^[xxx]	Rechana, Vata, Shoola, Aamdosha, Kapha, Gulma, and Udara roga. Snuhi milk is indicated in Gulma, Kustha, Udara roga and best Virechaka drug.					
7	Dhanvantari nighantu ^[xxxi]	Dushtavranahar, Ashmarihara, Vishahar, adhaman, Gulma and Udararoga					
8	Priya nighantu ^[xxxii]	Kapha and Vata disorders, Tikshnavirechaka, Udararoga, adhmana and Vivandh					
9	Nighantu Ratnakaa ^[xxxiii]	Pitta disorder, Poisons, Kustha, Vata disorders, Prameha. Unmada, Kustha, Piles, Shotha, pliha vriddhi, visharoga.					
10	Bhavaparkash nighantu ^[xxxiv]	Shoola, Ashthilka, Adhamana, Kapha, Gulma, Udararoga, Unmada, Meha, Kushtha, Arsha, Shoth, Medoroga, Pandu, Ashmari, Vranashothahar, jwara, Visha, Gulma and Dirgharoga.					
11	Shodala Nighantu [xxxv]	Karnashoola, Udararoga, Moodagarbha, Krimidanta.					
12	Vaidyamanorama [xxxvi]	Arsha, Vrana,					
13	Shastrayoga ^[xxxvii]	Dushta Vrana					
14	Quality Standards of Indian Medicinal Plants Vol. 11 [xxxviii]	Wound healing and inflammatory disorders.					
15	A.P.I [xxxix]	Gulma, Udararoga, Meha, Kustha, and Shotha.					

DISCUSSION

S*nuhi* possesses *Katu-Tikta* Rasa (taste), *Guru-Tikshna Guna* (properties), *UshnaVirya* (potency) and *Katu Vipaka*. Acc. to Ayurvedic Pharmacopeia of India *Snuhi* is *Tikshnavirechana* and *have Bhedana* and *Aama-kapha-vatahara Karma*. Cycloartenol and euphol are the major active constituent of *Snuhi*. On reviewing Classical literature it is found that *Snuhi* is useful in treatment of *Shoola,Aam*, *Asthilika*, *Adhaman*, *Gulma*, *Udararoga*, *Vataparkopa*, *Dushivisha*, *Plihavriddhi*, *Kustha*, *Unmada*, *Ashmari Dushitavrana*, *Arsha*, *Bhagandara* and *Pandu*. From ayurvedic literature and modern literature review it is found that the Pharmacological activities which are proved after following pharmacological studies; is already explained in our ayurvedic classics like *Vranahara karma* ressembles Wound healing property, *Shoolahara* ressembles Analgesics property

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and so on. It is the need of time to understand our classics and enhance our knowledge so, the drugs explained in our classics can be used clinically for various therapeutic actions and wellbeing of the mankind.

CONCLUSION

According to Ayurvedic Literature and investigations of various researchers it is concluded that *Snuhi* (Euphorbia nerifolia Linn.) has active medicinal potential and various proved pharmacological actions. Snuhi is *Tikshnavirechana, Bhedana* and *Aama-kapha-vata hara*. This study helps in conducting further clinic trials, so that *Snuhi* can be used for more therapeutic purposes.

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