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Review Article

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AN ENVISIONING ANALYSIS OF MADHU (HONEY) FROM **AYURVEDIC LITERATURES**

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ABSTRACT

Honey has been an integral part of our lives since ancient times. Be it for internal administration or external application the usage of honey is unparalled. It is derived from the hives of honeybees (A.indica, A.mellifera and other species) as a liquid sugary sweet substance for the usage of man. In Ayurveda honey is known as Madhu. Not only in Sanskrit language but the term madhu is used ubiquitously for honey in maximum known languages in India. It is one of the most nutritous and unprocessed form of carbohydrate that is used as a whole. Acharyas of Ayurveda in their texts have provided elaborate description about madhu, its properties, qualities, types, indications and mamy more. Not only has this but knowledge regarding the proper usage of honey in proper method also been provided in the texts for the betterment of life. Several studies regarding honeys has been done and are being

done every now and then to explore about its activities. It is known to poccess activities like anti-bacterial, anti-inflammatory, pharmacological wound bronchodilator, and numerous others. This study is aimed towards the exploring of the various ayurvedic texts for the purpose of bringing out the knowledges that has been stored regarding Madhu.

KEYWORDS: Madhu, Honey, Types, Properties, Purity standards.

INTRODUCTION

Madhu is a naturally occourring sweet fluid produced by the honeybees by enzymatic transformation of floral nectar ingested by them and deposited in the cells of hives or combs.

The Indian species of honeybees belong to the genus Apis of which the common ones are A. indica, A. dorsata and A. florea (Fam. Apidae). In commerce, Madhu may be collected from naturally occurring hives in groves and forests, by pressing and squeezing in the traditional method or may be extracted by centrifugation of the combs containing honey in artificially maintained apiaries.^[1]

Nirukti

"मन्यत इति मध्।" ("manyata iti madhu, man-u nasya dhaḥ") (Uṇādi-sūtra 1/18)

That which is Sweet, pleasant, agreeable, delightful and deliciousis known as Madhu^[2]

"Govindapādapadmāsavam madhu" (Bhāgavata 1/18/12)

The juice of the lotus that resides in the feet of Lord Govinda is known as Madhu^[2]

"Madhu dvirephah kusumaikapātre priyām svāmanuvartamānah" papau (Kumārasambhava 3/36)

The juice or nectar of flowers is known as Madhu [2]

Madhu (मध्) - One of the Asuras born from the ear-wax of Mahāviṣṇu. [2]

Vernacular names^[1]

Assamese Mahu

Bengali Madhu, Mau

English : Honey

Hindi Madhu, Sahad

Guirati Madh

Kannad Jenetuppa

Malayalam Then

Marathi Madhu

Oriya Mahu

Punjabi Sahad

Tamil Thën

Telegu Ten

Urdu Sahad

Synonyms	Dn	An	Kn	Bpn	Mpn	Rn	Sdn	Rvn
Madhu	+	+	+	+	+	+	-	-
Makshika	+	+	-	+	+	+	-	-
Madvika	-	-	-	+	-	-	-	-
Kshoudra	+	+	-	+	-	+	-	-
Kusumasava	+	-	-	-	-	+	-	-
Pushpasava	+	-	+	-	+	+	-	-
Pushparasa	-	+	+	-	+	+	-	-
Saragha	+	+	+	+	-	-	-	-
Makshikavanta	-	-	-	+	-	-	-	-
Bhrungavanta	-	-	-	+	-	-	-	-
Vartivanta	-	-	-	+	-	-	-	-
Makshikavita	-	-	+	-	-	-	-	-
Pushparasodbhava	-	-	-	+	-	-	-	-
Pavitra	-	-	-	-	-	+	-	-
Pitrya	-	-	-	-	-	+	-	-

Table 1: Synonyms as per various nighantus.

(+ denotes presence, - denotes absence)

(DN- Dhanwantari Nighantu, AN- Astanga Nighantu, KN- Kaiyadeva Nighantu, BPN-Bhavaprakash Nighantu, MPN- Madanpala Nighantu, RN- Raja Nighantu, SDN- Sodala Nighantu, RVN- Rajavallabha Nighantu)

Literature review

1. According to veda, Purana and Upanishad

Madhu (मध्) refers to "honey", according to the Skandapurāṇa 2.2.13 ("The Greatness of Kapoteśa and Bilveśvara"). [2]

Madhu (मध्)—Honey was used with food by the Rgvedic Indians. The Śatapatha-brāhmaṇa mentions honey as the life-sap of the sky. It even calls it a form of Soma^[2]

Madhu (मध्) refers to "honey", forming part of a common diet in ancient Kashmir (Kaśmīra) as mentioned in the Nīlamatapurāṇa.—Madhu is recommended as an offering to be made to the goddess Śyāmā (verse 800)^[2]

Madhu (मध्) refers to "honey" and can be used in the Tailadhārā ceremony, according to the Śivapurāṇa 2.1.14:—"Oil-Dhārā [viz., tailadhārā] shall be performed on Śivalinga for harassing enemies.^[2]

Madhu (मधु) refers to "honey" according to the Rgveda IV.45.3, and is commonly found in literature dealing with the topics of dietetics and culinary art, also known as Pākaśāstra or Pākakalā.^[2]

Madhu (मधु) refers to "honey", according to the Bṛhatsaṃhitā (chapter 5), an encyclopedic Sanskrit work written by Varāhamihira^[2]

Table 2: (Categorization	of madhu	in Sar	nhitas d	& Nighantus.

S. N.	Texts	Gana / Varga
		Vamanopaga mahakasaya
1	Caraka samhita	Sonitasthapana mahakasaya
		Madhu varga
2	Sushruta samhita	Madhu varga
3	Astanga sangraha	Madhu varga
4	Astanga hridaya	Madhu varga
5	Dhanwantari nighantu	Suvarnadi varga
6	Astanga nighantu	Viprakirna prakarana
7	Madanpala nighantu	Ikshukadi varga
8	Raj nighantu	Paniyadi varga
9	Kaiyadeva nighantu	Aushadhi varga
10	Bhavprakash nighantu	Madhu varga
11	Sodala nighantu	Madhu varga
12	Rajvallabha nighantu	Madhyahinakaparichheda

Description

A thick, syrupy, translucent yellow to yellowish brown fluid; taste sweet with a pleasant odour and flavour. When poured on to a tray as a thin layer, no impurities like mould, dirt, beeswax, insect fragments, plant debris or any other objectionable foreign matter should be visible to the naked eye in daylight.^[1]



Fig. 1: Apis indica (honeybee).

Fig. 2: Honeycomb.



Fig. 3: Honey.

Types

Different Acaryas of ayurveda have stated various varities of madhu. Acarya Caraka, Vriddha Vagbhata and Madanpala have stated 4 types of honey and the other Acaryas and Nighantukaras have stated 8 types of madhu. No varieties of madhu have been mentioned in Astanga Nighantu. The various types are given below.

Table 3: Types as per Samhitas and Various nighantus.

Types	CS	SS	AS	DN	AN	KN	BPN	MPN	RN	SDN	RVN
Bhramara	+	+	+	+	-	+	+	+	+	+	+
Makshika	+	+	+	+	-	+	+	+	+	+	+
Pouttika	+	+	+	+	-	+	+	+	+	+	+
Kshoudra	+	+	+	+	-	+	+	+	+	+	+
Chhatra	-	+	-	+	-	+	+	-	+	+	+
Arghya	-	+	-	+	-	+	+	-	+	+	+
Auddalaka	-	+	-	+	-	+	+	-	+	+	+
Dala	-	+	-	+	-	+	+	-	+	+	+

(+ denotes presence, - denotes absence)

(CS- Caraka Samhita, SS- Sushruta Samhita, AS- Astanga Sangraha, DN- Dhanwantari Nighantu, AN- Astanga Nighantu, KN- Kaiyadeva Nighantu, BPN- Bhavaprakash Nighantu, MPN- Madanpala Nighantu, RN- Raja Nighantu, SDN- Sodala Nighantu, RVN- Rajavallabha Nighantu)

Table 4: Characteristics of the various types of madhu.^[3]

Types	Characteristics
Pauttika	Ghritavarna, Ruksha, Usna, Vata-Asrik-Pitta kara, Vidahi,
	Madakara, Dahakara
Bhramara	Picchila, Madhura, Guru, Raktapittaghna, Mutrajadyakara,
	Swadupaka, Abhishyandi, Hima

Kshaudra	Kapilavarna, Sita, Laghu, Lekhana, Mehahara
Makshika	Pravara, Tailavarna, Laghutara, Ruksha, Netraamayahara, Beneficial
	in Swasa, Kasa, Ksaya, Kamla, Arsa, Kshata
Chhatra	Swadupaka, Guru, Picchila, Tarapana, Beneficial in Raktapitta,
	Switra, Meha, Krimi, Bhrama, Trisna, Moha, Visa
Aarghya	Atichaksusya, Kaphapittahara, Kasaya, Katupaka, Balya, Tikta,
	Avatakrita
Auddalaka	Ruchikara, Swariya, Kusthahara, Visahara, Kasaya Amla rasa, Usna,
	Pittakara
Dala	Kasaya, Usna, Ruksha, Amla, Pittakara, Katupaka, Chardya,
	Mehahara, Laghu, Deepana, Kaphahara, Kasaya anurasa, Ruchya,
	Guru, Madhura, Snigdha, Brimhana

Ayurvedic properties

Rasa: Madhura, Kasāya

Guna: Laghu (Susruta), Guru (Caraka), Ruksa, Picchila, Yogāvahī

Virya: Śita

Vipāka: Katu^[1]

Table 5: Rasapanchak as per Samhitas and Various nighantu.

Rasapanchal	k					Te	exts			
		Cs	Ss	As	Ah	Dn	Kn	Bpn	Mpn	Sn
Rasa	Madhura	+	+	+	+	+	+	+	+	+
	Kasaya	+	-	+	+	-	-	-	-	-
Anurasa	Kasaya	-	+	-	-	-	+	+	-	-
	Guru	+	-	+	-	-	-	-	-	-
	Sita	-	-	-	-	+	+	+	+	-
	Ruksha	+	+	+	+	+	+	+	+	-
Guna	Laghu	-	+	-	-	+	+	+	+	-
	Visada	-	-	-	-	-	+	+	+	-
	Picchila	-	+	-	-	-	-	-	-	-
	Sukshma	-	-	-	-	-	-	+	-	-
Virya	Sita	+	+	+	-	-	+	+	+	-
Vipaka	Katu	-	_	+	-	-	-	-	-	+

(+ denotes presence, - denotes absence)

(CS- Caraka Samhita, SS- Sushruta Samhita, AS- Astanga Sangraha, AH- Astanga Hridaya, DN- Dhanwantari Nighantu, KN- Kaiyadeva Nighantu, BPN- Bhavaprakash Nighantu, MPN- Madanpala Nighantu, SDN- Sodala Nighantu)

Karma

Table 6: Dosakarma of madhu acc. to Samhitas and Nighantus.

Texts	Vatakarma	Pittakarma	Kaphakarma	
Caraka samhita	Vatalam ^[4]	Pittanuta ^[4]	Kaphanuta ^[4]	
Sushruta samhita	Tridosaprasamana	[5]		
Astanga sangraha	Vatakaraka ^[6]	Pittanasaka ^[6]	Kaphanasaka ^[6]	
Astanga hridaya	Vatala ^[7]	Pittanuta ^[7]	Kaphanuta ^[7]	
Dhanwantari nighantu	Tridosanuta ^[8]			
Kaiyadeva nighantu	Tridosahara, vatal	$a^{[9]}$		
Bhavaprakash nighantu	Alpavatalam ^[10]	Pittanasak ^[10]	Kaphanasaka ^[10]	
Madanpala nighantu	Alpavatalam ^[11]	Pittanasak ^[11]	Kaphanasaka ^[11]	
Sodala nighantu	Vatakopana [12]	Pittanuta [12]	Kaphanuta [12]	

Table 7: Sharirakarma of madhu acc. to Samhitas and Nighantu.

Texts	Sharirakarma
Caraka samhita	Sandhanakara, chedana, ruksa ^[4]
Sushruta samhita	Agnidipana, varnya, swarya, sukumara, lekhana, hridya,
	vajikarana, sandhana, sodhana, ropana, sangrahi, chaksushya,
	prasadana, sukshma marganusari ^[5]
Astanga sangraha	Chaksushya, chhedi, vranasodhana, sandhana, ropana, ruksha ^[6]
Astanga hridaya	Chaksushya, chhedi, vranasodhana, sandhana, ropana, ruksha ^[7]
Dhanwantari	Dipana, lekhana, balya, vranaropana, sandhana, chaksusya,
nighantu	swarya, hridya ^[8]
Kaiyadeva nighantu	Dipana, grahi, chaksusya, swarya, varnya, vilepana,
	soukumaryakara, vrisya, hridya, srotavisodhana, medhakara,
	chhedi, vranasodhana, vranaropana, visada, rocana, hladi,
	prasadajanana, yogavahi ^[9]
Bhavaprakash	Grahi, vilekha, chaksusya, dipana, swarya, vranaropana,
nighantu	vranasodhana, soukumaryakara, sukhma, srotovisodhana, hladi,
	prasadajanana, varnya, medhakara, vrisya, rocana, yogavahi ^[10]
Madanpala nighantu	Grahi, vilekha, chaksusya, dipana, swarya, vranaropana,
	vranasodhana, varnya, medhakara, vrisya, rocana, yogavahi ^[11]
Sodala nighantu	Swarya, medhya, hridya, lekhana, dipana, chaksusya,
	yogavahi ^[12]

Table 8: Vyadhikarma of madhu acc. to Samhitas and Nighantus.

Texts	Vyadhikarma
Caraka samhita	
Sushruta samhita	Meda roga, meha, hikka, swasa, kasa, atisara, chhardi, trisna, krimi, visa ^[5]
Astanga sangraha	Trishna, visa, hidhma, raktapitta, meha, kustha, krimi, chhardi, swasa, kasa, atisara ^[6]
Astanga hridaya	Trishna, visa, hidhma, raktapitta, meha, kustha, krimi, chhardi, swasa, kasa, atisara ^[7]
Dhanwantari nighantu	Chhardi, hikka, visa, swasa, kasa, atisara, sosa, raktapitta, grahi, krimi, trishna ^[8]
Kaiyadeva nighantu	Meda, swasa, hidma, meha, vami, raktatisara, trishna, daha,

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	visa, krimi, kustha, arsa, raktapitta ^[9]
Bhavaprakash	Kustha, arsa, kasa, raktapitta, klama, krimi, meda, trishna,
nighantu	vami, swasa, hikka, atisara, vitgraha, daha, kshatakshina ^[10]
Madanpala nighantu	Kustha, arsa, kasa, raktapitta, meha, klama, mada, trishna,
	vami, swasa, hikka, atisara, hridgraha, daha, kshatakshaya ^[11]
Sodala nighantu	Kushtha, meha, krimi, chhardi, swasa, kasa, atisara [12]

Stages

Madhu has been said to be of 2 stages depending on the time of collection, formation and application of heat. They are:

- I. a. Nava (freshly collected) Madhu, b. Purana (one year old) Madhu
- II. a. Pakwa (properly formed) Madhu, b. Ama (improperly formed) Madhu
- III. a. Usna (heated) Madhu, b. Sita (unheated) Madhu

Nava madhu (Freshly collected)

"नवं मधु भवेत् पुष्टयै नातिश्लेष्महरं सरम |" (BP/PK/Misraka gana/23)

Nava (freshly collected) madhu is pustikara (nutritious), na ati sleshmahara (not excessively kapha alleviator) and sara (fluidy) in nature.^[10]

"बृहंणीयं मध् नवं वातश्लेष्महरं परम|" (RVN/3/348)

Nava (freshly collected) madhu is brimhaniya (nutritious) and vata sleshmahara (alleviates vata and kapha dosa).^[13]

Purana madhu (1 year old)

"पुराणं ग्राहकं रुक्षं मेदोघ्नमतिलेखनम॥" (BP/PK/Misraka gana/23)

Purana (one year old) madhu is grahi (aids in absorption), ruksha (drying), medoghna (reduces obesity) and atilekhanam (excessively scraping) in nature. [10]

"पुराणं लघु संग्राहि निर्दोषं स्थौल्यनाशनम ||" (RVN/3/349)

Purana (one year old) madhu is sangrahi (aids in absorption), nirdosa (does not aggravate dosa) and sthoulya nasanam (reduces obesity). [13]

Pakwa and Ama madhu (Properly and Improperly formed)

"दोषत्रयहरं पक्व अममम्ल त्रिदोषकृत∥" (RVN/3/350)

Pakwa (Properly formed) madhu is tridosahara (Alleviates all the three dosas namely vata, pitta and kapha).^[13]

Ama (Improperly formed) madhu is amla (Sour) in taste and tridosakrita (Aggravates vata, Pitta and Kapha). [13]

Usna madhu (heated)

"उष्णमुष्णारमुष्णे स युक्तं चोष्णैर्निहन्ति तत्।प्रच्छर्दने निरूहे च मधूष्णं न निवार्यते ॥"

(AS/6/92), (AH/5/53)

विषान्वयात्तद्ष्णं त् उष्णे चोष्णेन वा सह । उष्णार्त्तस्योष्णकाले च स्मृतं विषसमं मध् ॥

(BPN/Madhu Varga/26)

Honey becomes fatal when used heated or used by a personsuffering from aggravated pitta or during summer and with hot substances. [6][7][10] Usna honey can be used for vamana and niruha vasti purpose as the madhu is excretedfrom the body before digestion. [6][7]

Sita madhu (Unheated)

गृहीत्वा मध् कुर्वन्ति तच्छीतं ग्णवन्मध् || (BPN/Madhu Varga/25)

Consumption of sita madhu is gunavat (beneficial for mankind). [10]

Purity standards^[1]

Wt. per ml. at 25° : Not less than 1.35

Moisture content (LOD) : Not more than 25 per cent by wt. Reducing sugars : Not more than 65 per cent by wt. Sucrose : Not more than 5.0 per cent by wt.

Fructose-Glucose ratio : Not less than 1 per cent by wt.

Ash Content : Not more than 0.50 per cent by wt.

Acidity (expressed as Formic acid): Not more than 0.2 per cent by wt.

Dose: 1 to 10 ml.^[1]

Storage: Should be stored preferably at 20 to 25° away from heat; should not be

refrigerated.[1]

Precautions of madhu consumption

नातः कष्टतमं किंचिन्मध्वामात्तिद्धि मानवम्। उपक्रमविरोधित्वात् सद्यो हन्याद्यथा विषम्॥ ॥ आम सोष्णा क्रिया कार्या सा भध्वामे विरुध्यते । मध्वामं दारुणं तस्मात् सद्यो हन्याद्यथा विषम् ।। (च. सु. २७. २४७ – २४८)

Nothing is as troublesome as āma caused by the improper intake of honey. Heat is considered to be wholesome in the case of ama but it is not conducive to āma caused by the improper intake of honey. Cold is conducive to honey but is not so to ama. So, by virtue of these therapeutic contradictions, ama produced by the improper intake of honey cause instantaneous death likes poison.^[4]

Important formulation: Mahdwaasava, Cyavanapraśā, Kutajavaleha. [1]

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