

LITERATURE REVIEW OF LAKSHA (*LACCIFER LACCA*)Dr. Chetana Chaudhari*¹ and Dr. Indira Ujagare²

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Mahavidyalaya, Pune.**ABSTRACT**

Laksha (*Laccifer lacca*) is a widely used drug in different formulations of Ayurveda as well as Unani. Laksha was first mentioned *Rigveda* for having healing properties. It is also well described in *Atharvaveda*. More than hundred formulations and divided uses of *laksha* are described in *Bruhat trayi*. Various therapeutic indications of *Laksha* are mentioned in *Samhitas* and *Nighantus*. *Laksha* was mentioned not only in ayurvedic literature, but also in *puranas*, *Vedas* as well as in Chinese literature, Unani literature, Greco Roman literature, etc. The present article highlights the ayurvedic description of *Laksha*.

KEYWORDS: *Laksha, Lakh, Laccifer lacca.***INTRODUCTION**

Laksha (*Laccifer lacca*) is a widely used drug in different formulations of *Ayurveda* as well as *Unani*. The English word lac, synonyms with Lakh in Hindi which itself is derivative of Sanskrit word *Laksha* meaning a lakh or hundred thousand. It would appear that Vedic people knew that the lac is obtained from numerous insects. *Laksha* is resinous secretions of number of species of lac insects, there are about 19 species available for lac, of which most common is *Laccifer lacca*.^[1] India is one of the largest producer of lac in the world, accounting for 50%- 60% of the total lac production over the world (nearly 1500 metric tonnes). It is found that over 400 host plants. Out of which, three main bivoltine host plants: *Kusum* (*Schleichera oleosa*), *Ber* (*Ziziphus mauritiana*), *Palash* (*Butea monosperma*). Lac (*Laksha*) collected from different host plants have different properties.^[2,3] Various therapeutic indications of *Laksha* are mentioned in *Samhitas* and *Nighantus*.

MATERIALS AND METHODOLOGY

Bruhat trayi, Nighatu, Articles related Laccifer lacca.

a) Laksha in Vedic Era

Verse 5 of the 5th volume of the ancient Hindu scriptures, the *Atharvaveda* is titled *Laksha* and gives a brief account of the lac insect and the medicinal properties of lac. The *Veda* reports that an extract of lac was widely used on open wounds for quick healing and tissue regeneration. Use of lac in joining up of broken bones was also common. The *Veda* finally indicates slurry of lac paste in water mixed with ghee and milk was commonly taken orally by sick or wounded persons to get back health.^[4]

Laksha was also mentioned in *Rugveda* for having bone Fracture healing properties.^[5]

b) Post-vedic literature

Therapeutic properties of *Laksha* were mentioned in *Shaunak Upanisada*.^[6] Lakshagruha was an important piece of architecture (or one of the important chapters) in *Mahabharata*.^[7]

c) Laksha in Samhitas

Laksha is classified in Ayurvedic literature in different context, because of its valuable uses. In *Charak Samhita*^[8], *Laksha* is mentioned in various formulations like *Manashiladi Ghruta*, *Kola-Lakshadi Ghruta*, *Beejakarishta*, etc. for external application as well as internal medicine. *Laksha* is used in the form of *Nasya*, *Lepa*, *Kwatha*, *Ghruta*, *Dhoopa* as well as in *Basti*.

Part Used/ Preparation/ Formulation	Indication	Reference
<i>Laksha-rasanjan-ela lepa</i>	<i>Kushtha (Vat-kaphaja Kushtha)</i>	C.S.Chi.7/125
<i>Bakuchyadi Lepa</i>	<i>Kushtha (Kilas)</i>	C.S. Chi. 7/171
<i>Laksha Choorna+Ksheer+Madhu</i>	<i>Kshataksheena (Kshat)</i>	C.S. Chi.11/15
<i>Laksha Choorna+Sura</i>	<i>Kshataksheena (Parshva Basti Ruja)</i>	C.S. Chi.11/16
<i>Laksha Choorna+Musta+Ativisha</i>	<i>Kshataksheena (bhinnavit)</i>	C.S. Chi. 11/16
<i>Lakshadi Ksheer</i>	<i>Kshataksheena</i>	C.S. Chi. 11/17
<i>KolaLakshadi Ghruta</i>	<i>Kshataksheena</i>	C.S. Chi. 11/34
<i>Beejakarishta</i>	<i>Panduroga</i>	C.S. Chi. 16/106-111
<i>Laksharasa + Makshikivishta Nasya</i>	<i>Hikkashwas</i>	C.S. Chi. 17/132
<i>Manashiladi Ghruta</i>	<i>HikkaShwas</i>	C.S. Chi. 17/145-146
<i>Dhoomapana Yoga</i>	<i>Kaasa</i>	C.S. Chi. 18/73-74
<i>Dhoomagada Yoga</i>	<i>Visha</i>	C.S. Chi. 23/100
<i>Ksharagada Yoga</i>	<i>Visha</i>	C.S. Chi. 23/101-104
<i>Amrut Ghruta</i>	<i>Visha</i>	C.S. Chi. 23/242-249
<i>Twakvishuddhikar Lepa</i>	<i>Dvivraneeya</i>	C.S. Chi. 25/114
<i>Savarnikaran Lepa</i>	<i>Dvivraneeya</i>	C.S. Chi. 25/117

<i>Bhargyadi Tail</i>	<i>Trimarmiya</i>	C.S. Chi. 26/153-154
<i>Khadiradi Gutika</i>	<i>Trimarmiya</i>	C.S. Chi. 26/206-214
<i>Khadiradi Tail</i>	<i>Trimarmiya</i>	C.S. Chi. 26/206-214
<i>Aaschotan</i>	<i>Trimarmiya</i>	C.S. Chi. 26/238
<i>Udumbaradi Tail</i>	<i>Yonivyapad</i>	C.S. Chi. 30/73-76
<i>Pradarnashak Yoga</i>	<i>Yonivyapad</i>	C.S. Chi. 30/97
<i>Sarva Atisarnashak Ghrut</i>	<i>Atisar</i>	C.S. Si. 8/36-37

In *Sushrut Samhita*^[10], Acharya Sushruta mentioned *Laksha* in various diseases especially in *Vrana* and *Shalya Aharanartha*. *Laksha* is also mentioned in *Dantaroga*, *Netraroga* and *Karnaroga* as well as in *Kshudrarogas*. Acharya Sushruta described *artava* as *Laksharasopama*, i.e., similar in color with *Laksharasa* or extract of *Laksha*.

<i>Choornapurvanarth</i>	<i>Raktaatipravrutti</i>	S. S. 14/36
<i>Lakshadi Gana</i>	<i>Vranaropan</i>	S.S. 38/64-65
<i>Laksha shalaka</i>	<i>Kanthaasakta Shalya</i>	S.S. 27/17-18 (Commentary)
<i>Rodhradi Gana</i>	<i>RaktaPrasadanarth</i>	S.S. 38/15 (Commentary)
<i>Nyagrodhadi Gana</i>	<i>Vranaropan</i>	S.S. 38/48-49
<i>Shirovirechanarth Yoga</i>	<i>Shirovirechan</i>	S.S. 39/6
<i>Ropan Taila</i>	<i>Sadyovrana Ropanarth</i>	S.C. 2/82-85
<i>Kakolyadi Ksheerpak</i>	<i>Bhagna</i>	S.C.3/13 (Commentary)
<i>Pracchedapashchat Lepa</i>	<i>Kushtha</i>	S.C. 9/10
<i>Lakshadi Lepa</i>	<i>Dadru</i>	S.C. 9/11-12
<i>Varti</i>	<i>Shwitra</i>	S.C. 9/26
<i>Kushthaghna Yoga</i>	<i>Kushtha</i>	S.C. 9/46
<i>Vranashodhan Tail</i>	<i>Dushtavrana shodhanarth</i>	S.C. 9/64
<i>Vajrataila</i>	<i>Dushta Vrana</i>	S.C. 9/54-56
<i>Mahavajra Taila</i>	<i>Dushta Vrana</i>	S.C. 9/57-64
<i>Arishtadi Siddha Sarpi</i>	<i>Kushtha</i>	S.C. 9/46-48
<i>Laksha Varti</i>	<i>Nadirog Samanya Vidhi</i>	S.C. 17/34
<i>Laksharasa</i>	<i>Nadirog Prakshalanarth</i>	S.C. 17/34 (Commentary)
<i>Laksharasa Siddha Taila</i>	<i>Kadar</i>	S.C. 20/21-23
<i>Laksha nadi/ Shalaka</i>	<i>Niruddhaprakash</i>	S.C. 20/43
<i>Gandush</i>	<i>Dantaveshta vrana</i>	S.C. 22/22
<i>Choorna Pratisaranarth</i>	<i>DantaHarsha</i>	S.C. 22/37
<i>Siddha Tail Yoga</i>	<i>Parilehak</i>	S.C. 25/21
<i>Palivardhanarth Yoga</i>	<i>Palivardhan</i>	S.C. 25/26
<i>Twaksankocharth Yoga</i>	<i>Twaksankochan</i>	S.C. 25/38
<i>Dhoopan Yoga</i>	<i>Dhoomaanilo Vishodhan</i>	S.K. 3/17
<i>Sanjeevan Yoga</i>	<i>Sarpadashta Vishahar</i>	S.K. 5/73-75
<i>Chandan- Aguruni Yoga</i>	<i>Bhagnasandhan</i>	S.K. 6/14-27
<i>ShrutaKsheera Prativap</i>	<i>Drushtigata Roga</i>	S.U. 17/92
<i>Manahshiladi Gutika</i>	<i>Kandu</i>	S.U. 18/100
<i>Gutikanjana</i>	<i>Nayanabhighat</i>	S.U. 19/15
<i>Karnapurvanartha</i>	<i>Karnastrav</i>	S.U. 21/44
<i>Karnapurvanartha</i>	<i>Karnastrav</i>	S.U. 21/47-49
<i>Avapeedana Nasya</i>	<i>Nasagat roga</i>	S.U. 23/4

Lakshadi Siddhataila	Jwar	S.U. 39/256
Siddha Peya	Tridoshaj Atisar	S.U. 40/104-105
Lakshadi yog	Panatyaya	S.U. 47/46

In *Ashtang Sangraha*^[11], Acharya Vagbhata explained *artava* as well as *puran ghruta* looks similar to *Laksharasa*. Also, he included *Laksha* in various *yogas* such as *shairisha taila*, *Lakshadi varti*. He also mentioned many *Agadas* containing *Laksha* such as *yapan Agad*, *Mahasugandha Agad*, *Sanjeevan Agad*, etc.

Lakshadi mani	Vishaghna	A.S. Su. 8/86
Harenvadi Mani	Vishaghna	A.S. Su. 8/89
Shirovirechanopayogi Gana	Shirovirechan	A.S. Su. 14/6
Prayogikdhoomopayogi Gana	Prayogik Dhoompan	A.S. Su. 14/7
Lodhradi Gana	Asruk Sthapan	A.S. Su. 36/10
Swarjikadi Lepa	Jeerna Jwara	A.S. Chi. 2/49
Pippalyadi Ksheer	Pittaj Kaas	A.S. Chi. 4/17
Nepalyadi Dhoom	Kaphaj Kaas	A.S. Chi. 4/49
Laksha Chhorna + Madhu	Urakshat	A.S. Chi. 5/2
Laksha Choorna + Ksheer	Parshvabasti Ruja	A.S. Chi. 5/2 (Commentory)
Mustadi Ksheer	Bhinnavit	A.S. Chi. 5/2 (Commentory)
Lakshadi Ksheer	Deeptanal	A.S. Chi. 5/3
Haridradi Dhoop	Shwas	A.S. Chi. 6/7
Kanadi Ghruta	Shwas	A.S. Chi. 6/26
Puradi Pichu	Hikka	A.S. Chi. 6/28
Lakshadi Siddha Peya	Rakta Atisar	A.S. Chi. 11/21
Lakshadi Choorna	Kushtha	A.S. Chi. 21/34
Lakshadi Lepa	Dadru	A.S. Chi. 21/69
Udumbar-Shalatvadi Ksheer	Basti-vyapad	A.S. K. 6/28
Natadi Ghruta	Sarvagrasahaman	A.S. U. 8/12
Shairish Taila	Unmad, Apasmar	A.S. U. 10/12
Vidangadi Anjan	Pothaki	A.S. U. 12/7
Laksharasa	Pakshma	A.S. U. 12/14
Lakshadi Varti	Vranashukla	A.S. U. 14/19
Madhukadi Ghruta	Adhimantha	A.S. U. 17/10
Swarnagairikadi Varti	Shleshmakshiroga	A.S. U. 19/33
Manjishthadi Aashchyotana	Shushkakshipak	A.S. U. 20/2
Yashtyadi Taila	Pali vardhan	A.S. U. 22/26
Lakshadi Taila	Putinasa	A.S. U. 24/34
Marichadi Pratisarana	Upakusha	A.S. U. 26/24
Hadiradi Gutika	Sarva Mukharoga	A.S. U. 26/54
Vidangadi Lepa	Arunshika	A.S. U. 28/13
Lakshadi Lepa	Savarnikaran	A.S. U. 30/52
Dhmamakadi Lepa	Savarnikaran	A.S. U. 30/52
Laksharasa Sinchana	Udaravrana	A.S. U. 31/21
Lakshadi Shirovirechan	Granthi	A.S. U. 35/2
Darvyadi Lepa	Apadamsha	A.S. U. 39/3
Lakshadi Lepa	Apadamsha	A.S. U. 39/3

<i>Laksha choorna + Aja ksheer</i>	<i>Pittottar Asruk udar</i>	A.S. U. 39/40
<i>Laksha Siddha Taila Pichu</i>	<i>Guhya roga</i>	A.S. U. 39/46
<i>Sanjeevan Agad</i>	<i>Vishaghna</i>	A.S. U. 40/46
<i>Yapan Agad</i>	<i>Vishaghna</i>	A.S. U. 40/47
<i>Priyangvadi Agad</i>	<i>Chetanavaha Samdnyakara</i>	A.S. U. 40/49
<i>Shirishadi Ghruta</i>	<i>Apasmar</i>	A.S. U. 44/75
<i>Lakshadi Lepa</i>	<i>Tvagvishodhana</i>	A.S. U. 44/49
<i>Mahasugandha Agad</i>	<i>Durvar Vishahara</i>	A.S. U. 47/23
<i>Lakshadi Taila</i>	<i>Savarnikara</i>	A.S. U. 48/35

In *Ashtang Hridaya*^[12], Acharya Vagbhata described Artava as *Laksharasabha*. *Laksha* is considered as *Shreshtha dravya* for *Urasandhan* (Healing of internal thoracic injury).

<i>Shaman Dhoop Gana</i>	<i>Shaman Dhoomapan</i>	A.H.S.21/16-17
<i>Jatudigdha Shalya</i>	<i>Shalya Aharanartha</i>	A.H.S. 28/37
<i>Laksha Kshaudrayukta Ksheer</i>	<i>Urakshat</i>	A.H.C. 3/73
<i>Surayukt Laksha</i>	<i>Parshvabastiruk</i>	A.H.C 3/74
<i>Mustadi Choorna + Laksha</i>	<i>Bhinnavit</i>	A.H.C 3/74
<i>Lakshadi Ksheer</i>	<i>Urakshat</i>	A.H.C 3/75
<i>Haridradi Dhoomavarti</i>	<i>Shwas</i>	A.H.C 4/10-14
<i>Lakshadi Siddha Ghruta</i>	<i>Tridoshaj Atisar</i>	A.H.C 9/90-91
<i>Lakshadi Choorna + Gomutra</i>	<i>Kushtha</i>	A.H.C 19/41
<i>Lakshadi Lepa</i>	<i>Dadru</i>	A.H.C 19/85
<i>Lepa Yoga</i>	<i>Vatkaphaj Kushtha</i>	A.H.C 19/87
<i>Lakshadi Tail</i>	<i>Balamaya (Jwaraghna, Bhootaghna)</i>	A.H.U. 2/54-57
<i>Natadi Ghruta</i>	<i>Sarvagrasahaman</i>	A.H.U. 5/20
<i>Jatiladi Ghruta</i>	<i>Unmad</i>	A.H.U. 6/34-38
<i>Jatimukuladi Varti</i>	<i>Kshatshukra</i>	A.H.U. 11/32
<i>Ashchotan Yoga</i>	<i>Rujaragshamanrtha</i>	A.H.U. 14/27
<i>Sechan Kwath</i>	<i>Raktapitta</i>	A.H.U. 16/11-13
<i>Lakshadi Rasasiddha Karpas janya Kajal</i>	<i>Pilla</i>	A.H.U. 16/57

d) *Laksha* in *Rasagranthas*

Laksha is mentioned in various *Rasagranthas* for *parad samskaras*, such as *Kuntavedha samskara*, etc. as well as in various formulations.

Rasa Ratna Samucchaya^[13]

<i>Raktavamiyar yoga</i>	<i>Raktavantiyar</i>	R.R.S./ Jwarachikitsa 87-98
<i>Pataladi rogahar yoga</i>	<i>Pataladi Rogahar</i>	R.R.S. Netraroga/23-75
<i>Laksharasa (Lepanarth)</i>	<i>Gandamala</i>	R.R.S. Karnaanasashiroroga/ 122-126

Rasatarangini^[14]

<i>Parad Maran Gana</i>	<i>Parad Maran</i>	R.T. 7/9-16
<i>Parad Bhasma + Laksha, Vasa, Haritaki, Madhu</i>	<i>Raktapitta</i>	R.T. 7/42
<i>Kushmandadi Gana</i>	<i>Parad Vikar Shantyartha</i>	R.T. 7/106-111
<i>Dadruvidravan Malahar</i>	<i>Dadru</i>	R.T. 8/59-62
<i>Abhrak Sattvapatan</i>	<i>Abhrak Sattvapatan</i>	R.T. 10/69-100
<i>Kharpar Sattvapatan</i>	<i>Kharpar Sattvapatan</i>	R.T. 21/207-208

Yoga Ratnakar^[15]

<i>LaghuLakshadi Tail</i>	<i>Jwar</i>	Y.R. Jwarachikitsa/368
<i>Bruhat Lakshadi Tail</i>	<i>Jwar</i>	Y.R. Jwarachikitsa/368
<i>Shatcharan Tail</i>	<i>Jwar</i>	Y.R. Jwarachikitsa/369
<i>Angarak Tail</i>	<i>Jwar</i>	Y.R. Jwarachikitsa/369
<i>Madhyam Lakshadi Tail</i>	<i>Jwar</i>	Y.R. Jwarachikitsa/369
<i>ChandanbalaLakshadi Tail</i>	<i>Jwar</i>	Y.R. Jwarachikitsa/370
<i>Laksha + Ksheer</i>	<i>Raktapitta</i>	Y.R. Raktapitta/ 541
<i>Laksharasa Nasya</i>	<i>Raktapitta</i>	Y.R. Raktapitta/546
<i>Kushmand rassa + Lakshachhorna</i>	<i>Rajayakshma</i>	Y.R. Rajayakshma/568
<i>koladi Ghruta</i>	<i>Rajayakshma</i>	Y.R. Rajayakshma/577
<i>Lakshadi Tail</i>	<i>Rajayakshma</i>	Y.R. Rajayakshma/579
<i>ChandanBalaLakshadi Tail</i>	<i>Rajayakshma</i>	Y.R. Rajayakshma/580
<i>Ashwagandhadi Tail</i>	<i>Rajayakshma</i>	Y.R. Rajayakshma/580
<i>Laksmivilas Tail (Gandhtail)</i>	<i>Rajayakshma</i>	Y.R. Rajayakshma/581

e) Laksha in Nighantu^[16,17,18,19,20,21,22,23,24,25,26,27,28,29]

In the *Nighantu Kaal*, *Laksha* became very famous and popular. So, all the *Nighantus* have described its zoological background, property and therapeutic uses. All the *Nighantus* have mentioned the valuable properties of *Laksha* like *Bhagnasandhan*, *Rakta Prashamana*, etc.

Laksha is described in *Nighantus* with different synonyms: *Krumija*, *Rakta*, *Palankasha*, *Rudhmalika*, *Deepti*, *Jatu*, *Ranjani*, *Krutaghna*, *Ragmata*, *Drumamaya*, *Kshataghna*, *Maatanga*, *Kusumbhika*, *Shashika*, *Karpat*, *Nirmatsara*, *Jantumata*, *Lohita*, *Gavayika*, *Khadiraka*, *Mudrani*, *Gandhamadani*, *Yaavpad*, *Neela*, *Dravarasa*, *Vrukshamaya*, *Padmottar*, *Balkusumbhu*, *Garadhika*.

Classification of Laksha as per different ganas and vargas.

<i>Bhavprakash Nighantu</i>	<i>Haritakyadi Varga</i>
<i>Shodhal Nighantu</i>	<i>Chandanadi Varga</i>
<i>Saraswati Nighantu</i>	<i>Chandanadi Varga</i>
<i>Dhanvantari Nighantu</i>	<i>Chandanadi Varga</i>
<i>Madanpal Nighantu</i>	<i>Karpuradi Varga</i>
<i>Ashtang Nighantu</i>	<i>Viprakeerna Prakaran</i>
<i>Shaliram Nighantu</i>	<i>Ashtavarga</i>
<i>Rajvallabha Nighantu</i>	<i>aushadhashray Parichcheda</i>

Properties of Laksha mentioned in Nighantu.

Properties	B.Pr.	K.N.	R.N.	G.R.M.	S.N.	D.N.	M.N.	A.R.M.
<i>Rasa-Kashay</i>	+	+	+	+	+	+	-	+
<i>Tikta</i>	-	+	+	-	-	+	-	-
<i>Vipaka -</i>	-	-	-	-	-	-	-	-
<i>Veerya- Anushna</i>	+	+	-	+	+	-	-	-
<i>Ushna</i>	-	-	-	-	-	+	-	-
<i>Sheeta</i>	-	-	-	-	-	-	+	-
<i>Guna - Laghu</i>	+	+	-	+	+	-	-	-
<i>Snigdha</i>	+	+	-	+	+	+	+	-
<i>Sheeta</i>	+	-	-	+	+	-	-	-

Therapeutic Actions Of Laksha mentioned in Nighantu.

Karma	B.Pr.	K.N.	R.N.	G.R.M.	S. N.	M.N.	M. D.N.	Rv.N.
<i>Balya</i>	+	+	-	+	+	+	+	+
<i>Varnya</i>	+	+	-	+	+	+	-	-
<i>Rakta-prashaman</i>	+	+	+	-	+	+	-	-

Action on Dosha – Dhatu.

Action on dosha: Kapha Pitta har

Action on dhatus: Raktastambhan, Asthisandharan, Vrana sandhankar, Rasaprasadan

Rogagnata of Laksha as per Nighantu.

Roga	B. Pr.	K.N.	R. N.	G. R. M.	S. N.	D.N.	M. N.	M. D. N.	Rv. N.	Sh.N.
<i>Kushtha</i>	+	+	-	+	+	-	+	+	+	+
<i>Jwar</i>	+	+	+	+	+	+	-	-	-	-
<i>Vrana</i>	+	+	-	+	+	+	+	-	-	+
<i>Urakshata</i>	+	+	-	+	+	-	+	-	-	-
<i>Bhagna</i>	-	+	-	-	-	-	-	+	+	+
<i>Visarpa</i>	+	+	-	+	+	-	+	-	-	+
<i>Kaasa</i>	+	+	-	+	+	-	+	-	-	-
<i>Visha</i>	-	+	+	-	+	-	-	-	-	-
<i>Krumi</i>	+	+	-	+	+	+	+	-	-	-
<i>Vyanga</i>	-	+	-	-	-	-	-	-	-	-
<i>Hikka</i>	+	-	-	+	+	-	-	-	-	-
<i>Grahabadha</i>	+	-	-	+	-	-	+	-	-	-
<i>Bhootabadhahar</i>	-	-	-	-	-	+	-	-	-	-

(Note* A.M.: Abhidhan Manjiri, A. R. M.: Abhidhan ratna Mala, K. N.: Kaiyadev Nighantu, R.N.: Raj Nighantu, S.N.: Shaligram Nighantu, B. Pr.: Bhav Prakash Nighantu, A.N.: Ashtang Nighantu, D.N.: Dhanvantari Nighantu, P.R.M.: Paryay Ratna Mala, M.N.: Madanpal Nighantu, G.R.M.: Guna Ratna Mala, M.D.N.: Madhav Dravya Nighantu, R.v.N.: Rajvallabh Nighantu, Sh.N.: Shodhal Nighantu)

f) *Laksha* in Modern era.

1. Indian Materia Medica, Vol II^[30]

This book places *Laksha* as *Tachardia lacca* / *Cateria lacca* / *Coccus lacca*, is described in detail with its vernacular names, zoological description, habitat, chemical constituents, therapeutic actions in *Ayurveda*, *Unani* and *Siddha*.

2. Classical Uses of Indian Medicinal Plants^[31]

Uses of *Laksha* are mentioned here are in chest wound, *Pradara*, Fracture. Dosage of *Laksha* is also mentioned.

3. The Wealth of India^[32]

Information about Lac, Lac Insect, Its Species, Cultivation, Lifecycle, Production and Trade as well as Components and Uses Of Lac are mentioned in volume 6 of the this book.

Varieties in India^[4]

In India, Lac insect is known to have two distinct strains classified based on their life cycle and preference of the insect for specific host plants: Kusumi (10%) and Rangeeni (90%). The life cycle of lac insects take about six months, hence, two crops a year can be obtained. In case of Kusumi strain, two crops are: i) Jethwi (June/July) and ii) Aghani (Jan./Feb). In case of Rangeeni, tow crops are: i). Karrtiki (Oct./Nov.) and ii) Baisakhi (May/June). The kusumi crop lac is considered superior resin, because of the lighter colour of resin, and it fetches better price. So far, nine genera and 99 species of lac insects have been reported from all over the world; whereas, 2 genera and 26 species are found in India.

Active principles^[4]

Resin can be broadly resolved into two fractions on the basis of solubility in ether: Ether insoluble - hard resin (approx. 70%), Ether soluble - soft resin (approx. 30%).

Component acids present in the resin portion of shellac are.

Aleuritic acid (30-35 %), Laccijalaric acid (22-26 %), EpiLaksholic acid (12-15%), Jalaric acid (8-10 %), Butolic acid (6-8 %) , Shellolic acid (8-10 %), Myristic acid (traces), Palmitic acid (trace). Besides this, Wax (4-5%) and coloring pigment, erythrolaccin (traces) are also present in shellac as co-components.

g) Other References of *Laksha*^[4]

- It is known from **Herodotus** that the explorer, *Scylax*, was sent by the Persian king, Darius I (in about 515 BC), to explore the course of the Indus River. In his writings, the *Periplus*, *Scylax* was the first western explorer to describe ancient India, wherein, mention was made of *Lakhos chromatinos* or lac dye.
- An 8th century AD specimen of lac (***Shi-Ko***) is still preserved in the *Shoso-In* (Imperial Warehouse) at Nara, Japan.
- **Pliny**'s Natural History (77 AD) refers to *electrone (ber)* trees, which decked the *Hypobus (Ganges)* river in the Indian sub-continent.
- An article on lac by "**Chang Po**" as far back as 320 A.D., and **Li Shih-Chen** sums up information collected from various sources. Lac is the product of *Nan-Fan* (Indo-China). It is dark-red-brown in colour, with the texture resembling an ore, hence the name "dark-red-brown ore". It is also collected attached to branches, and called red-brown twig.
- **Unani and Arab** (700-1200 AD) physicians wrote about the medicinal properties of *Luk* in their books. All the great *Unani* physicians indicate extensively the medicinal use of *Luk* for various diseases in their respective books and treatises. *Abu Hanifa* also recommends its use as a medicine.
- **Unani description / Mahiyat**^[32]

The word Lac is the English version of Persian and Hindi words that means "hundred thousand," indicating the large number of minute insects required to produce lac. In fact, about 17,000-90,000 insects are needed to produce one pound of shellac.

Unani physicians of later age especially of Indian subcontinent describe Lac, they mentioned it an animal origin drugs and named as "**Luk**" which is obtained from small insect which survive and flourish on tree leaves especially *Pepal*, *Ber*, *Hitta*, *Pakhri*. It is reddish, and looks like Toot *surkh* in colour, some of it are lemon-orangish in color, fragrant and tasteless and Light in weight. They also mentioned the method of Purification of Lac: Two drugs, roots of *Izkhar* (*Cymbopogon citrates*) and roots of *Rewand chini* (*Rheum emodi*) are taken half the weight of lac. Their decoction is prepared according to method described in Unani literature. Lac is triturated in a mortar containing this decoction for about 6 hours and then sieved through muslin cloth.

Therapeutic Action according to Unani^[33]

Khafqaan (Palpitation), Yarqaan (Jaundice), Istisqaa (Ascites), Azm-e-Jigar (Hepatomegaly), Waja-ulKabid (Hepatalgia), Faliij (Paralysis), Qai-ud-dam (Hemetemesis), Surfa (Dry Cough), Rabu (Asthma), Sudad-e-jigar (Liver Obstruction), Zof'e Gurda (Weak Kidney), Dubaila (Abscess) Bassor (Boils), Zarba'h wa-Sakta (Injury And Trauma), Karm-e-shikam (Helmentiasis), Juzaam (Leprosy) Waja-e-Zuhar (Backache), Surat-e-anzaal (Premature Ejaculation), Si'l (Tuberculosis).

CONCLUSION

Description and Therapeutic uses of *Laksha* are found in Ancient Ayurvedic texts as well as in Unani literature, Ancient Chinese literature, Ancient Japanese literature, Greeco-Roman literature. Uses of *Laksha* were well-known since Vedic period. *Laksha* possess *Tikta-Kashay Rasa*, *Anusha-Sheeta Veerya*, *Laghu-Snigdha* properties. It is one of the most commonly used medicine in *Bhagna*, *Vrana* and *Urakshata*. It is used in *Krimiroga*, *Visarpa*, *Kustha*. It can be evaluated by using Clinical Study.

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