

**CRITICAL REVIEW ON NOTABLE RESINOUS SUBSTANCE (*NIRYASA*) USED AS  
BOTANICAL IN AYURVEDA**

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**ABSTRACT**

Treatment in *Ayurveda* is largely depends on the preparations containing botanicals. Many a times, it is observed that different parts of the same plant are used for treating different conditions. Each botanical of a plant produces a particular set of pharmacological actions. They are important not only because they represent their respective plants but also they contain optimum potency to generate a whole bunch of pharmacological activities in the human body. Among all the botanicals mentioned in *Ayurveda*, *niryasa* (resinous substance) secreted from a plant is unique in its own way. The reason behind it is the way how it is formed and secreted. The other parts of the plant such as root, leaf, fruit etc. are the anatomical parts of the plant. They are grown as part of the developmental process of the plant. But, the resinous substance is formed either as result of a stimulus or a degenerative process. In both the case, it protects the plant's health and promotes its survival. The secreted resinous substance heals the wound caused by the injury, tries to kill the pathogens and covers the wounded surface. This fact is well taken by the age old medical science which considers the *niryasa* (resinous substance) as the useful part for therapeutics. This study reveals 34 plant species that secrete *niryasa* of special importance.

**KEYWORDS:** Botanical, *Niryasa*, Oleo-gum-resin, Dried latex, *Vranahara*,**INTRODUCTION**

Botanical is the store house of various phytochemicals with different strength. It is the representative of the respective plant species. It is the basic ingredient of almost all herbal and herbo-mineral preparations. It is of no surprise that the different parts of the same plant act in pretty different ways. Therefore, the selection of a botanical is purely dependent on the desired pharmacological activity. This fact is given much importance in the oldest medical science-*Ayurveda* which recommends different botanicals of the same plant for different purposes. It praises the botanical as the useful part (*prajojyanga*). For the reason, it possesses the potency to the greater extent and is used in treating the conditions.<sup>[1]</sup>

*Acharya Charaka* hints at 18 types of botanicals in his work.<sup>[2]</sup> While, *Acharya Kaiyyadeva* –the author of *Kaiyyadeva nighantu* described 10 important parts (*dashanga*)<sup>[3]</sup> of the plant that can be used in the therapeutics. These include *pushpa* (Flower), *phala* (fruit), *twacha* (bark), *moola* (root), *patra* (leaf), *sara* (heart wood), *niryasa* (oleo-gum-resin), *shaka* (branch), *shunga* (bud) and *dugdha* (latex). Among them, the formation of *dugdha* (latex) and *niryasa* (oleo-gum-resin) in a plant has altogether different reasons. They are formed and secreted in response to a stimulus that

threatens the survival of the plant such as injury and infection. Both are produced as a part of defense mechanism and are species specific. It is a common observation that secretion of the latex is an immediate response of the plant to the stimulus. But, the secretion of oleo –resin is a slow process. It is interesting to note that the latex secreted by some species turns out to be an oleo-gum or gum or oleo-gum -resin after some time. Interestingly, some species exudates are seen externally on the surface of the plants which, on coming in contact with air, become hard and called as gums. True gums are formed from the disintegration of internal plant tissues, mostly from the decomposition of cellulose in a process called gummosis.<sup>[4]</sup>

It is difficult to differentiate oleo-gum/ gum / oleo-gum – resin easily. It frequently oozes out through the bark and hardens on exposure to air. Resinous substances may occur alone or in combination with essential oil (oleo-resin) or gum (oleo-gum) or with both (oleo-gum-resin).

*Niryasa* is collective term used in *Ayurveda* to denote all semi solid or solid exudates such as gums, oleo –gums, oleo-resin, oleo-gum-resin and sometimes the dried latex also. The great sages of *Ayurveda* must have acknowledged their protective role in maintaining the health of the plants during the stressful situations like

injury, infection and other conditions affecting the growth. Hence, they included *niryasa* as one among the botanicals in therapeutics. Considering the importance of *niryasa*, an earnest attempt is made in this review to reveal the properties and actions of *niryasa* procured from different plant species mentioned in *Ayurveda* along with the present understanding on them.

## MATERIALS AND METHODS

### Materials

The following books were considered for the present review

- *Nighantu Adarsha* vol-1 and vol-2 available in print version, being written by Vaidya Bapalal ji, published by Chaukhambha bharti academy, Varanasi, Reprint edition 2007.
- *Dravyaguna vijnana* vol-2 and vol-3 available in print version, being written by Acharya Priyavrat

Sharma published by Chaukhambha bharti academy, Varanasi, Reprint edition 2011.

- *Dravya guna vijnana* vol-2 available in print version, being written by J.L.N shastry, published by Chaukhambha orientalia, Varanasi, third edition 2008.

### Methods

#### Screening of the data

- All the plants that secrete resinous substance were sorted out.
- The resinous substances which are mentioned as useful part were compiled.
- The resinous substances whose actions are specified in *Ayurveda* were also compiled.
- The true botanical source of the same were collected from the plant list
- Important constituents, the *rasa panchaka* and exuding part of the plant were tabulated.

**Table 1: Habit of botanical source and exuding part.**

S. No.	Niryasa	Plant's name	Habit	Exuding part
01	<i>Vanvrintaka niryasa</i>	<i>Giriparpati</i>	Herb	Root, Rhizome
02	<i>Afeem/afuk</i>	<i>Ahiphena</i>	Herb	Fruit
03	<i>Kattira niryasa</i>	<i>Kattira</i>	Tree	Stem bark
04	<i>Dhava</i>	<i>Dhava</i>	Tree	Stem
05	<i>Kankustha</i>	<i>Kankustha</i>	Tree	Stem bark, Leaf, Flower, Fruit
06	<i>Raala</i>	<i>Shaala</i>	Tree	Stem bark
07	<i>Sarjarasa/Chandrasa</i>	<i>Sarja</i>	Tree	Stem bark
08	<i>Garjana tel</i>	<i>Ashwakarna</i>	Tree	Stem bark
09	<i>Bhimaseni karpoora</i>	<i>Bhimaseni karpoora</i>	Tree	Stem bark, Branches
10	<i>Mocha rasa</i>	<i>Shalmali</i>	Tree	Stem bark
11	<i>Guggulu</i>	<i>Guggulu</i>	Tree	Stem
12	<i>Bola</i>	<i>Bola</i>	Tree	Stem
13	<i>Kundururu</i>	<i>Shallaki</i>	Tree	Stem
14	<i>Laksha</i>	<i>Koshamra</i>	Tree	Stem, Branch
15	<i>Rumaja</i>	<i>Rumaja</i>	Tree	Stem, Branch
16	<i>Jhingan gum</i>	<i>Gudamanjari</i>	Tree	Stem, Branch
17	<i>Butea gum</i>	<i>Palasha</i>	Tree	Stem
18	<i>Indian kino gum</i>	<i>Beejaka</i>	Tree	Stem
19	<i>Anjana</i>	<i>Anjana</i>	Tree	Stem
20	<i>Babbula niryasa</i>	<i>Babbula</i>	Tree	Stem
21	<i>Silhaka/Shilarasa</i>	<i>Silhaka</i>	Tree	Stem bark
22	<i>Blue gum</i>	<i>Taila parni</i>	Tree	Stem
23	<i>Red gum</i>	<i>Tailaparni</i>	Tree	Stem
24	<i>Citron gum</i>	<i>Taila parni</i>	Tree	Stem
25	<i>Hingu</i>	<i>Hingu</i>	Herb	Root, Stem just above the root
26	<i>Gaushira</i>	<i>Gaushira</i>	Herb	Root, Stem just above the root
27	<i>Ushaka</i>	<i>Ushaka</i>	Herb	Stem
28	<i>Nadihingu</i>	<i>Nadihingu</i>	Tree	Stem
29	<i>Lohbana</i>	<i>Lohbana</i>	Tree	Stem
30	<i>Sakmuniya</i>	<i>Sakmuniya</i>	Herb	Root
31	<i>Karpoora</i>	<i>Karpoora</i>	Tree	Stem
32	<i>Ganja</i>	<i>Bhanga</i>	Herb	Leaf
33	<i>Shri veshtaka</i>	<i>Sarala</i>	Tree	Stem
34	<i>Rakta niryasa</i>	<i>Raktaniryasa</i>	Tree	Fruit

Table-2: Botanical source and family of the plant species yielding resinous substance.

S. No	Niryasa	Botanical source <sup>[5]</sup>	Family <sup>[6]</sup>
01	Vanvrintaka niryasa	<i>Sinopodophyllum hexandrum</i> (Royle)T.S.Ying	Berberidaceae
02	Afeem/afuk	<i>Papaver somniferum</i> L	Papaveraceae
03	Kattira niryasa	<i>Cochlospermum religiosum</i> (L.)Alston	Bixaceae
04	Dhava	<i>Anogeissus latifolia</i> (Roxb.ex DC.)Wall.ex Guillem. & Perr	Combretaceae
05	Kankustha	<i>Garcenia morella</i> (Gaertn.)Desr.	Clusiaceae
06	Raala	<i>Shorea robusta</i> Gaertn	Dipterocarpaceae
07	Sarjarasa/Chandrasa	<i>Veteria indica</i> L.	Dipterocarpaceae
08	Garjana tel	<i>Dipterocarpus turbinatus</i> C.F.Gaertn	Dipterocarpaceae
09	Bhimaseni karpoora	<i>Dryobalanop sumatrensis</i> (J.F.Gmel.) Kosterm..	Dipterocarpaceae
10	Mocha rasa	<i>Bombax ceiba</i> L.	Malvaceae
11	Guggulu	<i>Commiphora mukul</i> (Hook.ex Stocks)	Burseraceae
12	Bola	<i>Commiphora myrrha</i> (Nees)Engl	Burseraceae
13	Kundururu	<i>Boswellia serrata</i> Roxb.ex Colebr.	Burseraceae
14	Laksha	<i>Schleichera oleosa</i> (Lour.)Merr.	Sapindaceae
15	Rumaja	<i>Pistacia lentiscus</i> L.	Anacardiaceae
16	Jinghan gum	<i>Lannea coromandelica</i> (Houtt.) Merr..	Ancardiaceae
17	Butea gum	<i>Butea monosperma</i> (Lam.)Taub	Leguminosae
18	Indian kino gum	<i>Pterocarpus marsupium</i> Roxb	Leguminosae
19	Anjana	<i>Kingiodendron pinnatum</i> (DC.)Harms.	Leguminosae
20	Babbula	<i>Acacia nilotica</i> (L.)Delile	Leguminosae
21	Silhaka/Shilarasa	<i>Altingia excelsa</i> Noronha	Altingiaceae
22	Blue gum	<i>Eucalyptus globules</i> Labill	Myrtaceae
23	Red gum	<i>Eucalyptus rostrata</i> Sm..	Myrtaceae
24	Citron gum	<i>Corymbia maculata</i> (Hook.)K.D.Hill &L.A.S. Johnson	Myrtaceae
25	Hingu	<i>Ferula narthex</i> Boiss	Apiaceae
26	Gaushira	<i>Ferula galbaniflua</i> Bioss.&Buhse.	Apiaceae
27	Ushaka	<i>Dorema ammoniacum</i> D.Don	Apiaceae
28	Nadihingu	<i>Gardenia gummifera</i> L.f	Rubiaceae
29	Lohbana	<i>Styrax benzoin</i> Dryand.	Styraceae
30	Sakmuniya	<i>Convolvulus pseudoscammonia</i> C.Koch	Convolvulaceae
31	Karpoora	<i>Cinnamomum camphora</i> (L.)J.Presl	Lauraceae
32	Ganja	<i>Cannabis sativa</i> L	Cannabinaceae
33	Shri veshtaka	<i>Pinus roxburghii</i> Sarg..	Pinaceae
34	Rakta niryasa	<i>Daemonorops draco</i> (Willd.)Blume.	Aracaceae

Table-3: Vernacular name of niryasa and important constituents.

S. No	Niryasa	Important constituent
01	Vanvrintaka niryasa	Astragalin, Podophyllotoxin
02	Afeem/afuk	Phenanthrene and Isoquinilones
03	Kattira niryasa	Polysaccharides, Galalacturonic acid
04	Dhava	Tannin
05	Kankustha	Garcinolic acid,Morellin
06	Raala	Epi-ψ-taraxastanonol,β sitosterol, dipterocarpol,
07	Sarjarasa/Chandrasa	Essential Oil,Camphene, α &β pinene
08	Garjana tel	Damerenediol 2,Betulonic acid
09	Bhimaseni karpoora	α caryophylline,β caryophylline ,α pinene
10	Mocha rasa	Gallic acid, Tannic acid,D-galactopyranose
11	Guggulu	Z-guggulsterone, E-guggulsterone, Guggullignans 1&2
12	Bola	Volatile oil containing terpenes, sequiterpenes, esters,cuminic aldehyde and eugenol
13	Kundururu	Boswellia oil, resin, gum
14	Laksha	Lac acid,laccin, resin
15	Rumaja	Masticoracin,Masticonic acid
16	Jinghan gum	D-galactose,L-arabinose
17	Butea gum	Leucocynadins,Procyanidin
18	Indian kino gum	Kinotannic acid, Pyrocatechin,Pectin

19	Anjana	Terpenes,Flavonoids, Tannins
20	Babbula	Galactoaraban
21	Silhaka/shilarasa	Benzoic acid,Cinnemic acid
22	Blue gum	Tannin, cineol
23	Red gum	Tannin, cineol
24	Citron gum	Tannin, cineol
25	Hingu	Volatile oil containing sulphur, a- pinine
26	Gaushira	Terpenes, Sulphur,umbellifeone
27	Ushaka	Volatile oil, Salicylic acid,Beleric acid
28	Nadihingu	Olcanonic acid, $\beta$ sitosterol,Gardenin
29	Lohbana	Benzoic acid,Cinnemic acid,vanilline
30	Sakmuniya	Scamonin
31	Karpoora	Campherol, Cineol,Pinene,camphene
32	Ganja	Resin,Cannabinol,Tetrahydrocannabinol
33	Shri veshtaka	Pinene,Carene,Longifolene,Tarpine
34	Rakta niryasa	Pterocarpol,Dipterocarpol

Table 4: Rasa, Vipaka and Guna of Ushna veerya yukta niryasa.

S. No	Niryasa	Rasa	Vipaka	Guna
01	Vanvrintaka niryasa	Tikta,Katu	Katu	Laghu, Teekshna
02	Afeem/afuk	Tikta Kashaya	Katu	Laghu, ruksha, Suksma Vyayayi ,Vikasi
03	Kankustha	Katu, Tikta	Katu	Laghu, Ruksha
04	Guggulu	Tikta Katu	Katu	Laghu Ruksha Teekshna Vishada Sukshma, Sara Sugandhi
05	Bola	Tikta Katu Kashaya	Katu	Laghu, Ruksha
06	Kunduru	Katu Tikta Madhura	Katu	Laghu,Teekshna,Ruksha
07	Jinghan gum	Madhura Kashaya	Katu	-
08	Rumaja	Madhura, Kashaya	Madhura	Laghu, Ruksha
09	Silhaka/shilarasa	Tikta, Katu Madhura	Katu	Snigdha Laghu
10	Hingu	Katu	Katu	Laghu snigdhaTeekshna
11	Ushaka	Tikta, Katu	Katu	Laghu, Ruksha
12	Nadihingu	Katu, Tikta	Katu	Laghu, Ruksha, Teekshna
13	Lohbana	Madhura,Tikta	Madhura	Laghu,Ruksha, Teekshna
14	Ganja	Tikta	Katu	Laghu, Teekshna
15	Shri veshtaka	Katu, Tikta, Madhura	Katu	Laghu, Teekshna, Snigdha

Table-5: Rasa, Vipaka and Guna of Sheeta veerya yukta niryasa.

S. NO	Niryasa	Rasa	Vipaka	Guna
01	Kattira niryasa	Kashaya, Madhura, Katu	Madhura	--
02	Dhava	Kashaya	Katu	Laghu, Ruksha
03	Raala	Kashya Madhura	Katu	Ruksha
04	Sarjarasa/Chandrasa	Kashya Tikta	Katu	Ruksha
05	Garjana tel	Kashya Madhura	Katu	Ruksha
06	Bhimaseni karpoora	Tikta.katu, Madhura	Katu	Laghu, Teekshna
07	Mocha rasa	Kashaya	Katu	Laghu Snigdha, Picchila
08	Butea gum	Madhura, Kashaya	Madhura	Laghu, Snigdha
09	Indian kino gum	Kashaya	Katu	Laghu, Ruksha
10	Babbula	Madhura, Kashaya	Madhura	Snigdha
11	Blue gum	Kashaya	Katu	Laghu, Snigdha
12	Red gum	Kashaya	Katu	Laghu, Snigdha
13	Citron gum	Kashaya	Katu	Laghu, Snigdha
14	Karpoora	Tikta.Katu, Madhura	Katu	Laghu, Teekshna
15	Rakta niryasa	Kashaya	Katu	Laghu, Ruksha
16	Laksha	Kashaya	Katu	Laghu, Snigdha

Table 6: Actions of *ushna veerya yukta niryasa*.

S. No.	Niryasa	Actions
01	<i>Vanvrintaka niryasa</i>	<i>Rechana</i>
02	<i>Afeem/afuk</i>	<i>Shoshana, Grahi, Kaphahara, Vata kara, Pittala</i>
03	<i>Kankustha</i>	<i>Rechana, Krimighna</i>
04	<i>Guggulu</i>	<i>Lekhana, Sandhaniya, Swarya, Rasayana, Balya,</i>
05	<i>Bola</i>	<i>Stambhana</i>
06	<i>Kunduru</i>	<i>Twachya, Purisha sangrahaniya, Stambhana</i>
07	<i>Rumaja</i>	<i>Mutrala, Vrishya, Deepana, Sangrahi</i>
08	<i>Jinghan gum</i>	<i>Vrana hara, Vata hara, Rujapaha</i>
09	<i>Silhaka/Shilarasa</i>	<i>Kustaghna, Jwaraghna, Kapha vatahara,</i>
10	<i>Hingu</i>	<i>Deepana, Sanjnasthapana, Chedana</i>
11	<i>Ushaka</i>	<i>Deepana, Jantughna, Medhohara, Chedana</i>
12	<i>Nadihingu</i>	<i>Vibandhahara, Vatanulomana</i>
13	<i>Lohbana</i>	<i>Chedana, Kasahara,</i>
14	<i>Ganja</i>	<i>Madaka, Deepana,</i>
15	<i>Shri veshtaka</i>	<i>Shleshmaputihara</i>

Table 7: Actions of *Sheeta veerya yukta niryasa*.

S. No	Niryasa	Actions
01	<i>Kattira niryasa</i>	<i>Balya, Vrishya, Grahi, Shoolahara, Stambhana</i>
02	<i>Dhava</i>	<i>Mutrasangrahaniya, Vedanasthapana</i>
03	<i>Raala</i>	<i>Vrana ropana, Stambhana, Sandhaniya</i>
04	<i>Sarjarasa/chandrasa</i>	<i>Stambhana, Kustaghna, Visphota hara, Vatajit</i>
05	<i>Garjana tel</i>	<i>Kustaghna, Kothaprashamana</i>
06	<i>Bhimaseni karpooora</i>	<i>Kustahara, Lekhana, Kandughna, Kshayahara</i>
07	<i>Mocha rasa</i>	<i>Kapha pittahara, Stambhana, Vranahara</i>
08	<i>Butea gum</i>	<i>Vrishya, Balya</i>
09	<i>Indian kino gum</i>	<i>Danta shulahara</i>
10	<i>Babbula</i>	<i>Vrishya, Shothahara, Balya</i>
11	<i>Blue gum</i>	<i>Grahi</i>
12	<i>Red gum</i>	<i>Grahi</i>
13	<i>Citron gum</i>	<i>Grahi</i>
14	<i>Karpooora</i>	<i>Kustahara, Lekhana, Kandughna, Kshayahara</i>
15	<i>Rakta niryasa</i>	<i>Stambhana</i>
16	<i>Laksha</i>	<i>Stambhana, Kustaghna, Stambhana</i>

## DISCUSSION

*Niryasa* (resinous substance) is defined as that which is secreted in the form of a liquid from the plant as a result of increased plant's temperature.<sup>[7]</sup> This definition indirectly hints at the defensive mechanism taking place in the plant during the secretion of *niryasa*. Increased temperature is always indicates a part of defense mechanism even in human beings. Kalidasa- the author of *Raghuvamsha* considered *niryasa* as the fragrant secretion of the plant.<sup>[8]</sup> Anyway, the term *niryasa* is used in a much broader sense in *Ayurveda*. It encompasses all the secretions of the plant that become sticky over time. It refers to true gums, oleo- resins, oleo-gum-resins and even the latex that turns in to a gelatinous substance. It is comprehensible that many plant species secrete *niryasa* (resinous substance). But, as a notable botanical, 34 plant species, among which, 27 trees and 07 herbs distributed among 21 different families have gained much importance in *Ayurvedic* therapeutics.

### On the potency of Niryasa

Among the 34 plant species that secrete the *niryasa* (resinous substance) of great importance in *Ayurveda*, *niryasa* of 15 plant species is *ushna*. While, the rest possess *sheeta veerya* except *Gaushira*, *Sakmuniya* and *Anjana* whose *rasa panchaka* is not mentioned clearly.

*Niryasa* secreted by 15 plant species possess *ushna veerya*, among them, *Hingu*, *Guggulu*, *Ahiphena*, *Karpooora* and *Kankustha* need to undergo purification process before being used as a medicine. This explains the fact that these resinous substances carry such compounds that are quite harmful to the human beings if used in raw form. It is a common observation that the resinous substances that possess *ushna veerya* act primarily as stimulants affecting different system of the body. They mainly contain volatile oil and/or alkaloids and/or glycosides and gum. In fact, their appearance on the surface of the plant is to kill the pathogen or to seal the injured part of the plant. The same compounds target the human cells in the same way as they do on the micro

organisms. Hence, there will be some sort of harmful effects produced in humans. The dosage of such resinous substance is therefore, very much small.

*Niryasa* secreted by 16 plant species possesses *sheeta veerya*. Interestingly, they act in two different ways based on the *rasa* present in them. i.e 1) dominant in *madhura rasa* and 2) dominant in *kashaya rasa*. *Sheeta veerya yukta niryasa* with dominant *madhura rasa* act as *balya*, *vrishya* and *brimhana*. While, the latter, acts as *grahi*, *mutra sangrahaniya*, *shonita sthapana*, *vra na ropana* and even *vedana sthapana* by the virtue of *prabhava*.

#### On the chemical nature

Based on the present understanding, all these notable resinous substances can be classified as:

- **Oleo-gum-resin:** *Guggulu*, *Kunduru*, *Hingu*, *Ushaka*, *Lohbana*, *Sarja rasa*,
- **Oleo-resin:** *Anjana*, *Raala*, *Garjana tel*, *Rumaja*, *Silhaka*, *Karpoora*, *Bhimaseni karpoora*, *shri veshtaka*, *Sakmuniya*
- **True gum:** Butea gum, Indian kino gum, *Babbula*, Blue gum, Red gum, Citron gum, *Kattira*, *Dhava*, *Mocha rasa*, *Nadihingu*, Jingham gum
- **Dried latex:** *Afeem/Afuk*
- **Resin:** *Ganja*
- **Resin-gum-Laksha,** *Kankustha*, *Vana vrintaka niryasa*, *Bola*, *Rakta niryasa*, *Gaushira*

#### On Process of collection

Almost all the resinous substances are collected by incising or cutting the secreting part. In fact, time of collection of the *niryasa* in *Ayurveda* classics is not very much clear. But, few experts consider *sara* as *niryasa* and collect it in either *Hemanta ritu* (Dec-Jan) or *Vasanta ritu* (April-May) as per the time of collection for *sara* mentioned by *acharya Charaka*<sup>[9]</sup> and *acharya Sushruta*<sup>[10]</sup> respectively.

#### On Lesser known facts related to different resinous substances

- *Vana vrintaka* possesses a neuro toxin containing resin; hence it is used in small quantity along with *parasika yavani* to relieve the abdominal cramp which occurs as its side effect.
- *Kattira niryasa* contains polysaccharides and hence it acts as *pushthidayaka*.
- *Kankustha* is a source of Morellin- an effective wound healer
- Jingham gum – the resin secreted from the plant *Guda manjari* is advocated in form of nasal administration in *skandha bahu ruja* (pain in the cervical and shoulder region which appears, on the conceptual back ground, as cervical spondylitis).
- Literature of *Ayurveda* recommends *Raala* for *Vipadika* and *Agnidagha* in addition to other indications.

- *Guggulu* is advised in *Amlapitta* which is not usually thought of.
- *Bola* acts as a deodorant.
- *Kunduru* is advised in *mutrashmari* and for *shiro virechana* purpose.
- *Rumaja* is a remedy for tooth ache
- Recommendation of *Anjana* in Diabetes mellitus
- Recommendation of *Hingu* as collyrium in *Kamala*
- Best lac is obtained from the host plant- *Koshamra* botanically known as *Schleichera oleosa* (Lour.) Merr belongs to Sapindaceae. Interestingly, lac is the secretion of lac bug- *Kerria lacca* rather than the plant.
- *Gaushira* acts as *Vatahara*, *Kaphahara*, *Shothaghna* and *Akshepahara*.

#### CONCLUSION

On the contrary to the popular belief that the resinous substances can only make better excipients, the age old medical science-*Ayurveda*, has recognized 34 remarkable plant species that secrete medically useful resinous substances. Their inclusion in various formulations is the hall mark of their medicinal value. This review will help the researches to look up to new pharmacological activity in the different resinous substances to prove them as botanicals of great interest.

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#### CONFLICT OF INTEREST

None.

#### SOURCE OF SUPPORT

Nil.

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