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REVIEW ON THE IMPORTANCE OF *BHAVANA* AND ITS SIGNIFICANCE IN AYURVEDIC FORMULATIONS

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ABSTRACT

Bhavana (wet trituration / levigation) is one of the *samskaras* which are helpful for the purpose of bringing about the desired alteration in mentioned drugs. Application of *bhavana* process is not confined to *Shodhana* (purification) and *Marana* (incineration) or *Pishtikarana* of *Aushadhi dravyas* (medicinal drugs) but it is a unique pharmaceutical process in which a drug or mixture of drugs in powdered form is triturated with sufficient quantity of liquid media [viz. plant extractives (expressed juice, decoction etc) or animal products (urine, milk etc)] till liquid portion gets absorbed completely. The changes made by *Bhavana* in nature of drug can be preliminarily and easily perceived at pharmacognostic as well as chemical level; however its utility will be majorly dependent on therapeutic actions. The toxic effects and unwanted properties may be neutralized because of influence of *Bhavana dravya*. Therefore, knowing of *Bhavana Dravya* mentioned during various *Bhasma* and formulation preparation has an important role.

Keywords: *Bhavana*, Formulations, *Samskara*

INTRODUCTION: *Samskara* is a process in which the *Svabhava* (nature) of raw drug is converted according to the requirement of the formulation. *Bhavana* is one among such *Samskara* which is defined in different literatures of *Ayurveda texts*. In general, the raw material will be augmented with specific liquids for specific duration with specific method. The procedure of steeping the powder of *Dhatus* and herbs with liquid substances like *Swarasa, Kwatha, Taila, Ghrita* etc. followed by trituration in *Khalva- Yantra* to dryness is known as *Bhavana*.[i] *Bhavana* facilitates in mixing of ingredients of mixture for *Bhavana* and may account several chemical interactions in between them. The changes made by *Bhavana* in nature of drug can be preliminarily and easily perceived at pharmacognostic as well as chemical level;[2] however its utility will be majorly dependent on therapeutic actions. Thus, it plays a pivotal role in the alteration of *Gunas* (properties) of drugs so as to fulfil therapeutic requirements.[3] The most important feature of *Bhavana* process is that, even a small dose of a drug may be made to produce a very high result. The potency of the single or compound drugs may be further potentiated by conducting the *Bhavana* process, using their own juice. This procedure is also known as *Churna kriya.* The main reason behind this is even a less quantity of a drug will exert multiple actions if it is undergone proper *Bhavana*. In *Kalpa sthana*, *Acharya Charaka* emphasizes that, the potency of the drug will be increased, if the drug is levigated (*Bhavana*) with its own liquid (*Swarasa / Kashaya*).[4] Hence, in this pro-

cess, one should use the drugs, with their own juice or the juice of the drugs similar in potency.

In *Ayurvedic* literature, two methods of *Bhavana* are described- (1) Staged Levigation with particular liquid media and (2) Soaking with specified liquid.[5] Liquid media is an essential material component of *Bhavana*, contributing major role in the outcome of *Bhavana* (subjected to variation in different contexts) apart from the mechanical procedure like grinding etc.

In the process of *Bhavana*, the raw material taken in powder form is called as *Bhavya Dravya* and the liquid which is used along with is called as *Bhavana Dravya*. *Khalvayantra* (pestle & mortar) made of stone or porcelain is ideally used for the trituration.

It is not a single process but a combination of small stepwise processes like;

1. Combination (*Samyoga*) of low potency drugs with specified liquid Medias to bring drugs of higher potency.
2. Modification in properties (*Gunantaradhana)*
3. Trituration (*Mardana*) which produce the assimiable particle size of the drug.
4. *Agnisannikarsha* occurs, as trituration produce heat by friction due to which causes chemical and physical bonding and there is conversion of properties from its previous form (transformed).

The selection of *Bhavana Dravya* depends on the habitat (*Desha*) of drug i.e. for giving *Bhavana* of *Shita Virya Dravya* they should be taken from Himalayan region and if *Bhavana* of *Ushna Virya Dravyas* has to be given, then they are collected from *Vindhya Pradesha.*[6] Present review is an effort to assemble the scattered information of various procedures induced with *Bhavana* in *Ayurvedic* literature for *samskara*, *gunavardhanam* and *shodanam* purpose and also highlighting its Importance in *Ayurvedic* Formulations and its significance.

MATERIALS & METHODS Information are taken from various *Rasa* classic texts and other Ayurvedic treatises, text books of Ayurvedic and modern pharmaceutics, alchemy, Pharmacopoeias (Ayurvedic Formulary of India, Ayurvedic Pharmacopoeia of India), available dissertations / thesis were also investigated and also from Google scholar, MEDSCAPE, BMC, Science Direct, MEDLINE / pubmed database, SCOPEMED, and other relevant databases.

In *Rasashastra* literature, the method of *Bhavana* is described as - Soaking of liquid media in chronological order with the *Rasaushadha Dravya* and grinding simultaneously. Liquid media is an essential material component of *Bhavana*.

Amount of liquid required for *Bhavana* - The ideal quantity of *Bhavana dravya* is mentioned as that which is sufficient to make the powder drug moist /homogenous/ submerged. Quantity of liquid should be sufficient to fulfill the following criteria (observed in the drug under *Bhavana*): *Ardrata* (wetting), *Kardmabha* (mire like consistency), *Samplavana* (immersion), and *Ekibhoot* (becoming homogeneous mixture). The ideal parameters of *Bhavana* are termed as *Subhavita Lakshana***.**[7]

***Subhavita lakshana* -** The substance after *bhavana* will be able to be rolled in between fingers without being sticky. There will not be any cracks produced on outer surface when the rolled paste is pressed in between the fingers.[8]

***Durbhavita Lakshana* -** If the paste is sticky, watery or produces cracks on

pressing between the fingers it indicates that the *Bhavana* should be continued.

Time & Duration of *Bhavana* - Authoritative books of *Ayurveda* do not advocate *Bhavana* in rainy season, whereas winter and summer season are suitable. This may be probably because of the presence of the moisture in atmosphere during rainy season. If the duration of *Bhavana* is not specified, it can be continued up to seven days.[9]

Mechanism of *Bhavana* - By the process *Bhavana,* the *Bhavya dravya* loses the molecular cohesiveness and breaks into fine particles. This is because of rubbing action and the pressure applied during the process.

The materials will be rubbed between the rough surface of mortar and pestle which leads to attrition of substance which helps them to break down in to smaller particles. The continuous movement of pestle on hard surface also helps in adding the pressure on the substance. The weight of the pestle with the vibratory movement will further enhance breakdown of molecules.[10]

Significance of *Bhavana* - The toxic effects if any, in a *Bhavya dravya* will be neutralized because of influence of *Bhavana dravya*. Therefore, selection of *Bhavana dravya* has an important role, in reducing the impurities/toxic effects of the substance. *Bhavana* makes the drug easily digestible and assimilable. Completion of *Bhavana* results in smoothness of the drug leading to non-irritability. Usually metals and minerals are processed with help of *Bhavana*. The addition of *Swarasa*, *Kashaya* or water helps in easy grinding of hard drug materials specially metals and minerals. The vegetable drugs in the form of decoction or juice impart their own therapeutic effects to these metals during processing. The mineral raw materials need to be processed before internal use to make them digestible and absorbable. Total outcome of *Bhavana* depends on number of factors like *Bhavana dravya, Bhavya dravya, Bhavana vidhi*, Number and duration of *Bhavana.*

Table 1 - Examples of number/duration of *Bhavana* in Rasa Shastra classics[11]

BHAVANA	LIQUID MEDIA	FORMULATION	REFERENCE
One	*Arka patra Swarasa*	*Icchabhedi Rasa*	BR 31/46 [12]
	Triphala Kwatha	*Hridyarnava Rasa*	BR 33/38 [12]
Three	*Ardraka Swarasa*	*Kaphaketu Rasa*	BR 5/843 [12]
Four	*Kakmachi Swarasa, Shatavari Swarasa,* etc	*Indu Vati*	BR 62/76 [12]
Five	*Triphala Kwatha*	*Ardhanarinateshwara Rasa*	RSS 2/221[13]
Seven	*Hastishundi Swarasa*	*Kalyana Sundar Rasa*	BR 33/56 [12]
	Ardraka Swarasa	*Hingula Shodhana*	BR 3/133 [12]
	Guduchi Swarasa	*Dhatri Loha*	BR 30/144 [12]
	Arjun Twaka Kwatha	*Nagarjunabhra Rasa*	BR 37/81 [12]
Eight	*Chaturjat, Guduchi, Triphala* etc	*Gandhaka Rasayana*	AP 2/48 [14]
	Ksharodaka	*Taladi Ksharanjana*	BR 64/84 [12]
Twelve	*Shatavari Swarasa*	*Bhaskaramritabharaka*	BR 56/37 [12]

Fourteen	*Gomutra, Bhringaraja Kwatha etc*	*Sudhanidhi*	BR 42/105 [12]
	Bhringaraja Swarasa, Sharpunkha Swarasa	*Shitapittabhanjana Rasa*	BR 55/30 [12]
Eighteen	*Kushmanda Swarasa, Kanji* etc	*Talkeshwara Rasa*	BR 54/101 [12]
Twenty	*Chitrakamula Kwatha*	*Meghanada Rasa*	BR 37/137 [12]
Twenty one	*Bhringaraja Swarasa*	*Ashwakanchuki Rasa*	SYS,Jwaradhikara, p. 6[15]
	Ardraka Swarasa	*Ahiphena Shodhana*	RT 24/242 [16]
	Amalaki Swarasa	*Amalaki Rasayana*	CHK 67/3 [17]
	Kantakari Phala Swarasa	*Ajirnakantaka Rasa*	SS Madhyama Khanda 12/226 [18]
Twenty three	*Ardraka Swarasa*	*Mahodadhi Vati-2*	BR 10/111 [12]
Twenty four	*Kushamanda Swarasa* etc	*Talkeshwara Rasa*	BR 54/91 [12]
Twenty Eight	*Guduchi Swarasa* etc	*Grahnivajrakapat Rasa*	BR 8/268 [12]
Thirty	*Bhringaraja Swarasa*	*Mehabaddha Rasa*	SS Madhyama Khanda 12/205[18]
	Bhringaraja Swarasa	*Mehavajra Rasa*	BR 37/81 [12]
Thirty five	*Brahmi Kwatha* etc	*Garbhachintamani Rasa*	BR 68/85 [12]
Thirty seven	*Guduchi Swarasa* etc	*Amvateshwara Rasa*	BR 29/80 [12]
Fourty one	*Ardraka Swarasa* etc	*Ajirnabalakalanala Rasa*	BR 10/176 [12]
Eighty seven	*Sarpa Visha* etc	*Trailokyachintamani Rasa*	BR 5/770 [12]
Ninety	*Chitraka Mula Kwatha*	*Virbhadrabhraka Rasa*	BR 10/225 [12]
Hundred	*Aparajita Kwatha*	*Bhimarudra Rasa*	BR 72/57 [12]
	Dhattura Panchanga Swarasa	*Swachhanda Bhairava Rasa*	BR 5/480 [12]
Thousand	Total 67 different *Kwatha Dravya*	*Sahasra Puti Abhraka Bhasama*	ASS, Shodhana-Marana Prakarana, p.88 [19]

BR: Bhaishajya Ratnavali, RT: Rasa Tarangini, RSS: Rasendra Sara Sangraha, ASS: Ayurved Sara Sangraha, AP: Ayurved Prakash, SYS: Siddha Yoga Sangraha, SS: Sharangadhara Samhita, CHK: Chakradatta, AFI: Ayurvedic Formulary of India

Role of *Bhavana* in *Rasoushadhi* as per different context;

1. *Shodhana*
2. *Marana*
3. *Amrutikaran*
4. *Satawpatan*
5. *Lohitikaran*
6. *Aoushadh Yoga Nirman*

a. *Pishti Nirmana*
b. *Parpati kalpana*
c. *Kupipakva Rasayana*

d. *Pottali Rasayana*
e. *Kharaleeya Rasayanas*

Role of *Bhavana* in *Shodhana* –

• *Shodhana* is a process of removal of impurities of a raw material.
• The process of *Shodhana* requires a special and specific attention as far as the Mineral medicines are concerned.
• Many minerals are processed with *Bhavana* for their purification.
• It is hypothetically believed that the *Bhavana dravya* acts antagonistic to the *Bhavya dravya* thereby minimizing or neutralizing the toxic properties of a raw material.
• Further there will be addition of organic compounds to the mineral in *Bhavana* process leading to potentiation.
• This phenomenon helps in removing the soluble impurities and addition of useful material to the drug.

Table -2 - *Bhavana Dravya* in *Shodhana* -[20]

Sl.	Name of *Rasa Dravya*	*Bhavana Dravya*	Reference
1.	*Tuttha* (Copper sulphate or Blue vitriol)	*Rakta varg*	R.R.S. 2/29
2.	*Gairik* (Ochre or Haematite)	*Gavya dugdha*	R.R.S.4/49 R.P.Su. 6/71
3.	*Manah*-shiila (Realgar, Red arsenic)	*Agastya patra* Swarasa (Sesbania grandiflora), *Agastya patra Swarasa, Adarak Swarasa* (Zingiber officinale)	R.R.S.3/93 R.P.Su.6/19 R.Chu.11/58
4.	*Anjana* (Lead & Antimony ore or compound , Collyrium)	*Bhrangaraj Swarasa* (Eclipta karkotika)	R.R.S.3/105
5.	*Hingula* (Cinnabar, Red sulphide)	*Nimbu swarasa, Adarak Swarasa*, *Lakuch Swarasa*	A. P. R.Chu11/110
6.	*Abhrak* (Mica)	*Kasmard Swarasa* (Cassia occidentalis), *Nagarmotha Swarasa* (Cyperus rotundus), *Choarai Swarasa*, *Haritaki* (Terminalia chebula) *Swarasa*, *Amalki Swarasa* (Emblica officinalis) *Gavya dugdha*	R.Chu.10/26 R.Chu.10/30 R.Chu.10/34
7.	*Vimal* (Iron Pyrite)	*Lakuch Swarasa* (Artocarpus lakoocha)	R.Chu.10/88
8.	*Swarna* (Gold, Aurum)	*Panchmaratika*, *Matulung Swarasa* (Citrus medica)	R.Sa.S.257
9.	*Tankan* (Borax , Sodium pyroborate)	*Jambiri* , *Nimbu Swarasa* (Citrus lemon),*Gomutra*(Ropya yantara)	R.Sa.S.250
10.	*Nilanjana* (Galena)	*Nimbu Swarasa* (Citrus lemon)	R.Sa.S.234

Role of *Bhavana* in *Marana* –

• *Marana* is a process of incineration of a mineral thereby making the final product (*Bhasma*) bio-available.
• The process of *Bhavana* is essentially required as a pre requisite for *Marana*.
• The process of continuous grinding (*Bhavana*) makes a mineral substance to become soft, fine and to expose the greater surface area of the mineral.
• The organic residue of *Bhavana dravya* acts as a catalyst for the process of *Marana* and there will be addition of few trace elements from herbal juice.
• In a research study done on *Yashada bhasma* prepared by *Bhavana* with *Kumari Swarasa*, it is found that the *Yashada bhasma* has the presence of Mg (1.000020 ppm), Cu, Co and Mn <0.5ppm which was added from the herbal source.[21]
• Due to repeated *Bhavana* used before every *Puta* (unit of heat), there will be the exposure of the un-reacted particles to more interaction with herbal compounds. This is to further help in complete conversion and enhancement of therapeutic potential.
• It is hypothetically opined that, Sodium silicate present in *Abhraka* imparts some lustre to it. Most probably by repeated levigation before *Puta* process, a part of it will be converted into sodium sulphate which helps in making silicate into soluble form. This is how the *Chandrika* of *Abharaka bhasma*[23] is reduced.

Table -2 - *Bhavana Dravya* in *Marana* -[20]

Sl.	Name of *Rasa Dravya*	*Bhavana Dravya*	Reference
1.	*Abhraka* *(Mica)*	*Erand Patra Swarasa* (Ricinus communis)	R.R.S. 2/26
2.	*Makshik* (Pyrite)	*Nimbu Swarasa* (Citrus lemon)	R.R.S 2/84 R.Sa.282
3.	*Vimal* (Iron Pyrite)	*Lakuch Swarasa* (Artocarpus lakoocha)	R.R.S.2/100
4.	*Tuttha* (Copper sulphate or Blue vitriol)	*Lakuch Swarasa*	R.Sa. 283 R.P Su.73 R.Chu.10/76
5.	Haratal (Orpiment, Yellow arsenic)	*Palash* Twak *Kwath* (Butea monosperma) *Peepal Twak Kwatha* (Ficus religiosa) *Arka Dughda* (Calotropis procera) *Kumari Swarasa* (Aloevera) *Nimbu Swarasa* *Churanodak*	R.R.S.3/74-75 R.R.S.11/30-34 R.R.S.11/35-38 R.R.S.11/39-41 R.Sa. 385 R.Sa.S.199 R.Sa.S.199
6.	*Tamra* (Copper, Cuprum)	*Lakuch Swarasa*	R.P.Su.36 R.Chu.14/34
7.	*Naag Dhatu* (Lead , plumbum)	*Vasa patra Swarasa* (*Adatoda vasica*)	R.T.19/24-28
8.	*Swarna* (Gold, Aurum)	*Bijora nimbu Swarasa* *Snuhi Ksira*	R.P.Su.14 R.p.Su.16

		(Euphorbia neriifolia) *Matulung Swarasa*	R.Chu.14/17
9.	*Rajat* (Silver, Argentinum)	*Lakuch Swarasa*	R.Chu.14/34
10.	*Loha* (Iron, Ferrum)	*Ghrat Kumari*	R. Sa. 276

Role of *Bhavana* in *Amrutikarana* –

- The *Bhasma* obtained from the process of *Marana* is further detoxified by *Bhavana* process as it infuses active principles of *Bhavana dravya* to it.
- This increases the bioavailability of *Bhasma* and makes it more suitable for internal use.

Table -3 - *Bhavana Dravya* in *Amrutikarana*-[20]

Sl.	Name of *Rasa Dravya*	*Bhavana Dravya*	Reference
1.	*Tamra Amritikarana*	*Nimbu Swarasa*	R.T.17/43- 44

Role of *Bhavana* in *Satwapatan* –

- Every mineral will have one or more metals as elements in the chemical composition. Extraction of an element from the mineral is termed as *Satwapatana*.
- In this process *Bhavana* acts as destructor of bondage between a cation and anion.[24]

Table -4 - *Bhavana Dravya* in *Satwapatan*-[20]

Sl.	Name of *Rasa Dravya*	*Bhavana Dravya*	Reference
1.	*Shilajit* (Asphaltum, Punjabinum, (Bitumen or Mineral pitch)	*Amla Dravya*	R.R.S 2/122
2.	*Tuttha* (Copper sulphate or Blue vitriol)	*Nimbu Swarasa*	R.R.S.1/13 4 R.Chu.10/ 78
3.	*Sphatika* (Potash Alum)	*Gavya Pitta*	R.R.S.3/65
4.	*Hartaal* (Orpiment, Yellow arsenic)	*Arak Dughda* *Gomutra* *Kulath Kwatha*	R.R.S.3/80 R.Chi.109 R.Chu. 11/36

Role of *Bhavana* in *Lohitikarana* –

- *Lohitikarana* is a process of giving colour to the *Bhasma*. The literatures of *Ayurveda* have guidelines given for identification of a *Bhasma* based on its color. Hence having proper color is an essential requirement of a *Bhasma*.
- For *Lohitikarana,* the coloring agents are augmented to the *Bhasma* with the help of *Bhavana*. (This suggests that the *bhavana* not only makes changes in chemical properties of the drug but also physical properties like appearance.)

Example: Usage of *Rakta varga dravya kashaya* like *Manjistha kashaya* imparts brick red color to *Abharaka bhasma.*

Role of *Bhavana* in Different *Rasayogas*

- *Bhavana* is also an important step in the preparation of the formulations like *Parpati*, *Pottali, Kupipakva* and *Kharaleeya Rasayana*.
- Efficacy of the final product however directly depends on nature, number and duration of *Bhavana*.
- Probably the process of *Bhavana* imparts the properties of each *Bhavana dravya* into the final product and enhances the potency.

• This further helps in reducing the dosage. It also increases the shelf life of final product.

• It is observed that increase in number of *Bhavana* increases the efficacy and reduces Dosage.[25]

• As per a research study conducted on *Dhatri Lauha*[26] prepared with different duration of *Bhavana* revealed that the *Dhatri Lauha* with maximum *Bhavana* contains maximum amount of berberine better in comparison with other samples.

• SEM EDAX (Scanning Electron Microscope Energy Dispersive X-ray spectroscopy) analysis indicates iron in all samples.

• Quantity of zinc was found to be maximum in *Dhatri Lauha* with more number of *Bhavana* (5.39%) which seems to be added contribution of *Guduchi kashaya* (*Bhavana dravya*).

• In another research work on *Shilagarbha pottali*,[27] increased percentage of calcium, potassium and magnesium was seen, which may be due to the role of *Ardraka* and *Kumari Swarasa Bhavana* done to *Kajjali* before *Pottali* preparation, in which both juices have these elements in large quantities.

Table -5 - *Bhavana Dravya* in various other formulations-[20]

Sl.	Name of *Rasa Dravya*	*Bhavana Dravya*	Reference
1.	*Abhrak Rasayan*	*Bhrangaj Swarasa*, *Chitrak Swarasa*, *Nirgundi Swarasa*	R. Sa. 369- 370
2.	*Moti Rasayan* (pearl)	*Adarak Swarasa*	R.Chu.13/10
3.	*Prawal Rasayan* (Coral)	*Matulung Swarasa*	R.Chu.13/12
4.	*Marakat* (Emerald, Beryl, Aqua marina)	*Ambu*	R.Chu.13/32
5.	*Gomeda*(Zircon,Agate,Cinnamom stone)	*Lakuch Swarasa*	R.Chu.13/58
6.	*Vang* (Tin, Stannum)	*Kumari Swarasa*	R.Chu.14/140
7.	*Ras-pottali*	*Tambul Patra Swarasa*	R.P.Su.28
8.	*Ras-parpati*	*Bhrangraaj*	R.P.Su.58
9.	*Hingul se Parad Nishkasan*	*Jambiri Nimbu Swarasa*, *Changeri Swarasa*	R.Sa.S.55
10.	*Ras-sindur Nirman*	*Bargad Jaaja Kwath*	R .Sa .S. 68
11.	*Ras-maanikya Nirman*	*Kushmand Swarasa*, *Dadhi*	R.Sa.S.101
12.	*Parad*	*Nimbu Swarasa*	R.Chi.16

R.R.S. – Rasaratnasamucchaya
R.Pra.Su. – Rasprakashasudhakara
R.Sa.S. – Rasendrasarasamgraha
R.T. – Rasatarangini
R.Chi. – Rasachintamani
R.P.Su. - Rasa Prakash Sudhakaar
R.Sa. – Rasayana Sar

DISCUSSION: One can judiciously select liquid media, its quantity for *Shodhana*, *Marana*, *Bhavana* for *Samsakara* so as to achieve desirable physical, chemical or therapeutic characteristics in the final product (especially in case of *Kharaliya* formulations). Use of liquids for *Bhavana* in ancient classics lays many guidelines for further research e.g. *Bhavana* used for *dravya Shodhana* (*Nirvishikarana*) suggests desirable change in chemical consti-

tution of *Visha dravya* rather than their extraction and removal. In *Ayurvedic* classics it is noted that in case of *Kharaliya Rasa Kalpa* with *Bhavana*, therapeutic dose of individual ingredient is far more than their respective quantity in formulation in therapeutic dose. Ancient *Ayurvedic* seers had logically used specific liquid media for specific motto of *Bhavana* in case of certain drugs and certain indications e.g. *Triphala Kwatha* is widely used for *Bhavana* in *Loha Marana* whereas *Amlavarga dravya* for *Marana* of drugs under *Sadharana Rasa*. *Hima, Phanta* and *Arka* are spared from *Bhavana* for *Marana* (*Agniputa*) etc.

This process of impregnation helps in reducing the particle size of the drugs thus increasing their capacity for absorption into the system. The *Bhavana* with specific organic liquid helps to induce trace elements in the *Bhasma* and to target it on a particular site of action. Augmenting property of ingredients generated with *Bhavana*, and there is more possibility of generation of potent synergistic action in between constituents, as a result of *Bhavana* since there are only few *Kharaliya Rasa Kalpa* where *Bhavana* is not mentioned or is mentioned with water. Maximum examples of liquids used for *Bhavana* in pharmaceutical preparations are of plant origin, while maximum varieties of liquids used in Ayurvedic Pharmaceutics are of animal origin. The interaction of liquids of same drug or different drug in *Bhavana* process may give leads for development of newer pharmaco-kinetic-dynamic potent molecules.

CONCLUSION: Different pharmaceutical techniques are scientifically designed by ancient Ayurvedic scholars. Abundant examples of use of drug specific, motto specific liquids for *Bhavana* suggests the advancement of Ayurvedic Pharmaceutical science and may explore new horizon for finding relation between respective media and material.

Bhavana plays a very important role in making the Ayurvedic metallic and mineral preparations minimise toxicity and making the easily absorbable into the system. Thorough screening of compiled data revealed that, at least total number of 39 (Plant origin-15, Animal origin- 21, Mineral origin-3) variety of liquid media as *Bhavana drava* were found mentioned in ancient Ayurvedic classics. From pharmaceutical viewpoint *Bhavana* process has immense importance and utilized for various dosage forms.

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