

THE EFFECT OF TAKRARISHTA ON GRAHANIROGA

Vidya G. Honde^{1*}, Rajesh Ingole² and Piyush Gandhi³

¹PG Scholer, Dept. of Rasashatra & Bhaishajya Kalpana, Govt. Ayurvedic College & Hospital, Nanded, Maharashtra.

²Professor and H.O.D, Dept. of Rasshastra and Bhaishajyakalpana, Govt. Ayurvedic College Nanded.

³Assistant Professor, Dept. of Rasshatra and Bhaishajyakalpana, Govt. Ayurvedic College Nanded.

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Corresponding Author*Vidya G. Honde**

PG Scholer, Dept. of
Rasashatra & Bhaishajya
Kalpana, Govt. Ayurvedic
College & Hospital,
Nanded, Maharashtra.

ABSTRACT

Sandhana Kalpana is the one of its kind, which can be used for both preventive and curative aspects. *Sandhan kalpana* potent therapeutically, the liquid dosage forms easier for ingestion and absorption to all age group with long shelf-life. Thus, *Asava* and *Arishtas*, the main products of *Sandhana Kalpana* are quite popular in the community of *Ayurvedic* physicians since ages. *asavas* are prepared from *apakva aushadhi ras* like *swaras* etc and the *arishtas* are prepared from the *pakva aushdhi ras* like *quath* etc. In the era of sedentary lifestyle, an irregular eating pattern i.e., intake of meals at different intervals of time, avoiding important meals and/or frequently indulging in fat rich fast food or junk meals are very much affecting

the human health, among those *Grahani Roga* is a global problem common in modernized human beings. *Takrarishta*, a fermented medicament containing *go-takra* (buttermilk prepared from curd of cow's milk) mainly comes under *sandhan kalpana*, mentioned in *charaksamhita* in *grahani roga dhikara* (cha chi 15/20-21) and in *arsh roga dhikara* (cha chi 14/ 73-75) & in *bhaishajyaratnavali* under *grahani roga dhikara* (*bhaishajyaratnavali* 8/ 609-610), in *ashtang hriday* (va chi, 8/45-47) also in ayurvedic formulary of India (AFI) it is extensively used in all types of *udara rogas* and especially in *grahani rogas*, it also indicated against hemorrhoid's, worm infestation, loss of appetite, irritable bowel syndrome and diarrhea, Additionally, nausea, vomiting, dry mouth, body pain after eating food, stomach tumor, oedema also it subsides itching and pain anal region & subsides pain or irritation of

throat) It helps in digestion by increasing *agni* factor in stomach as mentioned in the classics.

KEYWORDS:– *Sandhan Kalpana, asava-arishtha, grahaniroga.*

INTRODUCTION

In the era of fast food, there is change or irregularity in diet and diet timings and also sedentary lifestyle. In addition to change in diet and lifestyle, one is always under tremendous mental stress. All these causes disturbance to the digestive system, which results into many diseases, amongst which digestion and absorption disorders constitute an important group. It is estimated that gastrointestinal diseases are highly prevalent worldwide leading to substantial morbidity, they account for approximately 8 million deaths per year worldwide.^[1] In which irritable bowel syndrome (IBS) is very common it affects 11% population globally, around 30% people experience the symptoms of IBS.^[2] The symptoms of IBS are correlate with the disease *grahani* in *Ayurveda*. Which is explained by various ancient acharyas mainly acharya *Charak* & *Vagbhat*, by knowing importance of severity of this disease they add it in *ashtamahagadhas* (eight life hampering disease) *Grahani* is the organ of the body, situated between the *amashay* (stomach) and *pakvashay* (intestines) above the umbilical region, who disturbs and cause a disease *grahaniroga*. According to *Acharya Charak*, *Grahani* which is the site of *Agni*, is so called because of its power to restrain (*Grahanat*-the downward movement) food, and is supported and nourished by the strength of *Agni*.

Grahani and *Agni* are having *Adhara-Adheya-Sambandha*. *Grahani* is described as an *Agni Adhishthana* by most of the *acharyas*. *Mandagni* is a root cause of *Ama Dosha* and it is the crucial factor for manifestation of most of the diseases. Among them, *Grahani* (IBS) is the prime disease of gastro-intestinal tract and seen often in day-to-day practice.^[3]

Grahani and *Agni* are interdependent. Functionally weak *Agni* i.e., *Mandagni*, causes improper digestion of ingested food, which leads to *Ama Dosha*. This *Ama Dosha* is a root cause of most of the diseases. It has pivotal importance in the pathogenesis of *Grahani Roga*. *Grahani* is considered under eight major diseases.^[3]

Asava arishtha

Asavas and *aristhas* (fermented preparation) possess self-generated alcohol which acts as natural preservative obtained through conventional process. In ayurvedic system of medicine these formulations are in vogue since the time of *samhita* period. *Samhitas* present detailed

description of the technology of manufacturing of *asava arishta*. Due to *palatability*, accelerated therapeutic action and enhanced drug concentration, these formulations are superior over other *kalpanas*.^[4]

Asava are preparations which comes under *madya kalpana* prepared by using *swarasa* (expressed juice) technology and one which acts very quickly. *Arishta* are having more *samskara* and *guna* as compared to *asava* and are prepared using *kwatha* (decoctions).

References of these preparations are available since *vedic* period eg: preparation of *soma rasa* for gods and *sura* for humans in *Yajurveda* & *Rigveda*. Terminologies like *asava*, *arishta*, *prasanna*, *medaka*, etc. and vessels used for manufacturing are also mentioned. Post *vedic* period depicts the advanced technology of using *sandhaneeya dravya* (fermenting agents) like *dhataki pushpa* (*Woodfordia fruticosa*) or *madhuka pushpa* (*Madhuca indica*) in manufacturing.^[4]

®*Asavas* and *arishta* are medicinal preparations made by soaking the drugs, either in powder form or in the form of decoction (*kwatha*), in a solution of sugar or jaggery, for a specified period of time, during which it undergoes a process of fermentation generating alcohol, thus facilitating the extraction of the alcohol soluble along with water soluble active principles contained in the drugs.

The general properties of *asava* are *mana shareera vardhana* (~enriches mind and body) *agni vardhana* (appetizer), *bala vardhana* (~strengthening body), *shoka nashana* (~reduces sadness), *aruchi nashana* (appetizer) and *harsha Pradhana* (~induces happiness). *Arishta* are *laghu* in *paka*, *shreshta* (superior) among *sandhana Kalpana* and potent than *asava*.^[4]

The drugs are taken in specified quantity and made into *kwatha* (decoction) for *arishta* or *swarasa* (expressed juice) for *Asava*, then *madhura dravya* (sweetening agents) *sarkara* (sugar) or *madhu* (honey) or *guda* (jaggery) is added. *Kinva* (sediments containing yeast cells) is added and kept for *sandhana* in *sandhana paatra* to which *lepa* (smearing) of *mamsi*, *maricha*, *lodra* is applied. Mouth of the vessel is then properly sealed (*sandhibhandana*) and kept for fermentation. Once *jatarasa* (confirmatory test) is seen it should be filtered through a cloth. There are many numbers of *asava arishta* mentioned in our classics.^[4] Amongst all *takrarishta* is the widely used medicine in day-to-day practice, because of easily available drugs, easy method of preparation and its surprising effects on *agnimandya* and *grahani roga*.

AIM

- 1) To evaluate the role of *takrarishta* on *grahani roga*.
- 2) To Review about classical References of *Takrarishta* a *Asavavarishta Kalpana*.

OBJECTIVES

- 1) To know all references of *Takrarishta* along with difference in ingredients and dosage of the formulation.
- 2) To know the efficacy of *takrarishta* on *grahani roga*.

MATERIALS AND METHODS

1st mentioned in *Charaka Samhita* in *Grahani Chikitsaadhikara*, same reference seen in other classical text books. One more slightly altered formulation also mentioned in the name of *Hapushadi Takrarishta* by *Charaka Samhita* in *Arsha chikitsaadhikara* and *Astanga hridaya chikitsa sthana*.^[5]

Ingredients

| <i>Takrarishta</i> no 1 | <i>Takrarishta</i> no 2 |
|------------------------------------|---------------------------------|
| <i>Ajmoda</i> – 3 pala | <i>Hapusha</i> – 1 pala |
| <i>Amalaki</i> -3 pala | <i>Krushna jeeraka</i> – 1 pala |
| <i>Haritaki</i> -3 pala | <i>Shwet jeerak</i> -1 pala |
| <i>Maricha</i> -3 pala | <i>Dhanyak</i> -1 pala |
| <i>Saindhava lavana</i> - 1 pala | <i>Ajmoda</i> -1 pala |
| <i>Vida lavana</i> – 1 pala | <i>Karavi</i> -1 pala |
| <i>Samudra lavana</i> -1 pala | <i>Shati</i> -1 pala |
| <i>Sauvarchal lavana</i> – 1 pala | <i>Pippali</i> – pala |
| <i>Romaka lavana</i> -1 pala | <i>Pippalimul</i> -1 pala |
| <i>Takra</i> – 1 adhaka(240 parts) | <i>Chitrak</i> -1 pala |
| | <i>Gajpippali</i> - 1 pala |
| | <i>Takra</i> – 4 pala |

Takrarishta no. 1.

Method of preparation^[5]

1. All ingredients will be taken in above said quantity and made it as fine powder individually.
2. Preparation of *takra* is carried out by using *Dadhi* and Water quantity as mentioned in AFI.quantity.
3. Take prepared *Takra* in a vessel.
4. Add one after the other fine powder of ingredients along with stirring.

5. After adding all ingredients that liquid of mixture will be poured into fumigated porcelain or mudpot.
6. And closed it properly.
7. Kept for Fermentation.
8. Keep observing onset and completion of fermentation changes.
9. Once Fermentation gets complete open the seal and filter it and preserved.

Completion of fermentation according *rutus*

1. Sharad *Rutu* and summer – 3days
2. Varsha *Rutu* – 4days
3. Vasanta *Rutu* – 6days
4. Sheeta kala – 8days

Dose – 12 to 24ml.

Anupana – Equal qty of water.

Kala – more effective when taken in *saman kala*, i.e., *madhyabhakt* (between the meal)

Indications

- *Shotha*
- *Gulma*
- *Arsha*
- *Krimi roga*
- *Prameha*
- *Udara roga*

Mainly it is mentioned in *Charaka Samhita* and the same Reference is mentioned in *Bhaishajya Ratnavali*, *Chakradutta*, *Astanga Hridaya* and even AFI by Govt. of India.

One more Reference slight change in name of formulation and ingredients mentioned in *Astanga Hridaya* and *charak Samhita* as *Hapushadi Takrarishta*.

***Hapushadi takrarishta* (*Takrarishta* no 2)**

Method of preparation^[5]

Same as above

- Mentioned Fermentation duration as 6 to 7 days.
- *Rasa* as *Amla* and *Katu*.

- Administration especially advised during *Bhojana* and When person will be having Trishna.

Dose – 3 to 4 *tola*.

Anupan - *jala*

Karma

- Agnideepaka
- *Rochaka*
- *Balakaraka*
- *Kapha vatanulomana*

Indications

- *Guda Shotha*
- *Kandavarti Nashana*

The same Reference is also mentioned in *Charaka Samhita arsh chikitsadhyay, Yoga Ratnakara*

Siddhi lakshanas

- 1) No any sound in vessel.
- 2) When we blow a matchstick above the opening of vessel, flame doesn't go off.
- 3) Formation of specific color, taste and alcohol.
- 4) No precipitation in lime water.

Organoleptic characters of *Takrarishta*.^[6]

| Sr. no. | Parameter | Description |
|---------|------------|------------------|
| 1 | Color | Reddish brown |
| 2 | Odor | Mild Alcoholic |
| 3 | Taste | Astringent, Sour |
| 4 | Appearance | Clear liquid |

Grahani nidan (causes)- By abstinence from food, indigestion, overeating, irregular eating, taking unwholesome, heavy, cold, excessively dry and putrid articles of diet, by wrongful effects of purgation, emesis and olation, by emaciation consequent upon disease or the incompatibility of country, climate or season or by suppression of the natural urges, the gastric fire gets vitiated.

Samprapti – Because of mentioned causes the *koshtagni* gets vitiated, and this *koshtagni* does not able to digest a light & very less quantity of meal, taken meal remain in *grahani*, due to

indigestion and it get *vidagdh*, this *vidagdh* meal gets *amlatva* and causes *grahani roga*.

Samanya lakshanas – Sometimes watery sometimes hard stool passes, *trushna*, *aruchi*, *prasek*, *tamakshwas*, swelling on legs & hands, pain in bone and joints, *lohagandhi* smell, *tikta-amlaudgar* etc.

Types- *Grahani Roga* is of four types mainly: *Vatika*, *Pittaja*, *Kaphaja*, *Sannipatika*. Two special types also mentioned in some other texts they are *Samgrahani*, and *GhatiYantra Grahani*.

Samprapti gatakas

Nidan – *Aharaja*, *viharaja*, *manasika karanas*.

Doshas - *Kledaka kapha*, *Pachaka Pitta*, *Samana Vayu*. *Dushya* – *Rasa*

Agni – *Jatharagni mandya*

Srotas – *Anavaha srotas*, *Purishavaha Srotas* *Srotodushti* – *Sanga*, *Vimarga gamana*, *Atipravriti Udhbhavasthana* – *Amashaya*.

Rogamarga – *Madhyama* and *Bahya Roga Marga* *Vyadhiswabhaba* – *Chirakari*

Adhisthana – *Grahani*.

DISCUSSION

Importance of butter milk (Takra) in grahaniroga

For a patient suffering from the *Grahanidosha*, butter milk is the excellent drink because it stimulates the power of digestion, it is *Grahi* and easily digestible. Butter milk is sweet, sour, astringent in taste; light and dry in properties, hot in potency (*veerya*) and sweet in metabolism (*vipaka*). Because of *Madhura* (sweet) *Vipaka*, it does not cause aggravation of *Pitta*. Because of its astringent taste, hot in potency, it is useful for counteracting the aggravated *Kapha*. Because of the sweet and sour taste, it is useful for counteracting the aggravated *Vayu*. Acharya *Charak* has given a detailed description of how butter milk needs to be administered in a patient of *Grahani*, giving due concentration to his digestive fire, he ranges the duration of treatment either 1 week, 10 days or maximum for a month. According to *Bhavaprakasha*, who uses butter milk daily does not suffer from diseases and the diseases cured by butter milk do not reoccur, just as *Amrita* (divine nectar) is for the Gods, butter milk is for humans. Buttermilk has characteristically sour taste, increased activity of buttermilk is primarily due to lactic acid produced by Lactic acid bacteria; while fermenting lactose, the primary sugar in milk. The tartness of buttermilk is due to acid in the milk. As the

bacteria produces lactic acid, the pH of the milk decreases and casein, the primary milk protein, precipitates, causing the curdling or clabbering of milk. Buttermilk has probiotic qualities that help to regulate the functions of Gastrointestinal system. *Takra* or butter-milk serves as a natural substitute for the probiotics. Corticosteroids used in the treatment of IBD decrease the ability of the body to cope up with physical stress and also suppress the immune system activity, causing increased risk of infection. Considering the hazardous effect of these medicines in a long run, better management options are available in *Ayurveda* and *Takraprayoga* is one such.

Nutritional fact of 100 ml of butter milk

Total fat 0.88g, Saturated fat 0.55 g, Cholesterol 4.00mg, Total carbohydrates 4.79 g, Protein 3.31 g, Vitamin A 26 IU, Vitamins C 1.00 g, Sodium 105.00g, Calcium 116.00 g, Iron 0.05 mg, Potassium 151mg, Lysine 0.28 g.

After knowing the *nidan*, *samprapti* and *samprati ghatakas* we can say that buttermilk (*Takra*) and all the recipes of butter milk described for the treatment of *grahani* should be used for the treatment of *Grahanidosha/roga*. Acharya *Vagbhata* has advised buttermilk as a drink when *Ama* (Undigested material/toxins) is present in *Grahani* (IBS). In *Grahani Roga* (IBS), powder of drugs of *Pachana* (digestive), *Grahi* (bowel binding) and *Dipana* (carminative) that will improve digestive power groups along with buttermilk or buttermilk alone is beneficial. *Takrarishta* (Fermented preparation of buttermilk) or sour Buttermilk is advised in *Grahani* (IBS) because all the ingredient present in *takrarishta* are *deepan*, *pachan*, *grahi* in nature, *ushna veerya* and *madhur vipaki*, because of that guna, it neutralizes aggravated *pitta*, *amapachan agnideepana*, *rochana vatanulomana* and gives strength to *grahani*. *Takrarishta* especially used in *grahani* caused due to aggravated *Kapha*. Though freshly prepared buttermilk is astringent in taste and good for pacifying *Kapha*, but for stimulating digestive fire, sour type of buttermilk is beneficial and hence it is recommended in *Grahani* (IBS) caused due to aggravated *Kapha*.^[3]

Role of ingredients used in *takrarishta*

| Ingredients | Rasa | Veerya | Vipaka | Guna | Karma |
|------------------------|--|---------------------|---------------|---|---|
| <i>Takra</i> | <i>Amla, kashay,</i> | <i>Ushna</i> | <i>Madhur</i> | <i>Vikasi, laghu, ruksha, sandra</i> | <i>Laghu, grahi, deepan,</i> |
| <i>Ajmoda</i> | <i>Katu,</i> | <i>Ushna.</i> | <i>Katu</i> | <i>Laghu, tikshna, snigdha.</i> | <i>Deepan, hrudya, vrushya, balya.</i> |
| <i>Amalaki</i> | <i>Amla, Madhur Katu, tikt, kashay</i> | <i>Shit</i> | <i>Madhur</i> | <i>Laghu ruksha</i> | <i>Deepan, aampachan, Anuloman, ruchikar</i> |
| <i>Haritraki</i> | <i>Kashay, Madhur, Amla, katu, tikta</i> | <i>Ushna</i> | <i>Madhur</i> | <i>Laghu, ruksha</i> | <i>Anuloman, deepan Pachan rasayan</i> |
| <i>Maricha</i> | <i>Katu</i> | <i>Ushna</i> | <i>Katu</i> | <i>Laghu, tikshna</i> | <i>Deepan, kaphavatghn, Krumighn, shwasghn</i> |
| <i>Saindhav lavan</i> | <i>Lavan,</i> | <i>Shit</i> | <i>Madhur</i> | <i>Laghu, snigdha, Sukshma</i> | <i>Swadistha, Deepak,</i> |
| | | | | | <i>Pachak, Ruchikarak, vrushya, netrya vatanuloman</i> |
| <i>Vidlavan</i> | <i>Lavan</i> | <i>Ushna</i> | <i>Katu</i> | <i>Laghu ruksha tikshn, vyavayi</i> | <i>Deepan, ruchya, Vishtambh, anaha, vibndh, shulnashak</i> |
| <i>Samudra lavan</i> | <i>Lavan, tikta Madhur</i> | <i>Ushna</i> | <i>Madhur</i> | <i>Guru tikshn</i> | <i>Deepak bhedi Kaphkarak, vatnashk</i> |
| <i>Savarchal lavan</i> | <i>Lavan</i> | <i>Ushna</i> | | <i>Vishad, laghu, Sukshma</i> | <i>Rochak, bheda, Deepak Pachak, vatnashk</i> |
| <i>Romaka lavan</i> | <i>Lavan</i> | <i>Ushna atyant</i> | <i>Katu</i> | <i>Laghu, tikshn, Ushna, sukshma abhshyandi</i> | <i>Bhedi, pittajanan vatghna</i> |

Above mentioned ingredients of *takrarishta* are *deepan* in nature that means they increases the vitiated fire (*jatharagni*) also *pachan* of remaining food that converted into *aam* by its *pachan* property, because of its *laghu, tikshna ruksha gunas* it digest accumulated *aam*, because of its *vyavayi* & *vikasi gunas* it has fast action, increased bootability and great palatability, because of its *Madhur vipaka*, it suppress the aggravated *pitta*, because of its *amla, lavan, Madhur rasa*, it mitigates *vata*. Also, *katu rasa, katu vipaka* extinguishes *kapha*. Karma of most of *dravyas* are *ruchya*, that means it causes taste and interest for taking food. In the study it is found that *takra* and *takrarishta* has antimicrobial activity against different organisms, which are associated with G I infections. *Salmonella* and *C perfringens* cause infection in intestine along with the production of toxins.^[7]

CONCLUSION

The *takrarishta* no.1 i.e., *takrarishta* mentioned in *grahani chikitsadhya* has the property of *deepan*, *pachan*, *grahi*, *vatanulomana*, etc which are very beneficial in *grahani*, also the ingredients like *maricha*, *aamala*, *harda*, *ajowan* and *maricha* are used traditionally for GI disorders. Their water extract showed antimicrobial activity, also the use of piperine obtained from *maricha* as a bioavailability enhancer. *takrarishta* also shows the antimicrobial activity, since *takrarishta* is found to be effective against harmful bacterial strains in-vitro, the results may be considered important from clinical point of view, use of this formulation, therefore, is justified in both ancient and modern ways in G I infections and disorders especially in the IBS i.e., in *grahaniroga*.

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