

Critical analysis of applicability of *Shadanga Paneeya* in *Jwara Chikitsa*: A Review

Review Article

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Abstract

Jwara is one of the dreadful diseases, which affects the human body, mind as well as senses. The *jwara* has been described in all the classics of Ayurveda with prime importance. The fever has been described in detail with its etiology, pathology, sign symptoms, and management. Diet is being equally important as that of medicine. *Jwara* occurs due to the depletion of the digestive fire leading to the formation of *aama*. In *Charak samhita* different diet and drinks have been described as per the condition of *jwara*. *Siddha jala* (medicated drinks) has been described in *jwara* such as *Ushna jala* in *vata kapha jwara*, *Tiktaka shruta sheeta jala* in *madyaja* and *paittika jwara*, *Shadanga Paneeya* in all kinds of *jwara*. *Shadanga paneeya* has been described as useful in all kinds of *jwara*. *Shadanga* contains six drugs, viz., *Musta* (*Cyperus rotundus* Linn), *Parpatak* (*Fumaria parviflora* Lam.), *Usheera* (*Vetiveria zizanoides* (Linn) Nash.), *Chandana* (*Santalum album* Linn.), *Uddichya* (*Pavonia odorata* Willd), *Nagar* (*Zingiber officinale* Roscoe). This combination is unique, and helpful in all kinds of *jwara*. The drug possessing the properties of *sheeta veerya* and *tikta, katu rasa*, by virtue of which they are useful in pacifying the *jwara*. Therefore, here an attempt is made to understand the applicability of *Shadanga paneeya* in all kinds of *jwara*.

Key Words: *Jwara*, *Shadanga paneeya*, Fever.

Introduction

Samhitas are the source of knowledge of *Ayurveda*. In order to achieve the four pursuits of life *Ayurveda* helps to maintain the health and cure the disease. Diseases are described in *Samhitas* with their etiology, sign symptoms and management. *Jwara* (fever) is the disease which present at the time of birth and death also. *Jwara* is considering as important disease as it afflicts the body, mind and senses.

In *Charaka samhita jwara* has been described with its etiology, sign symptoms and management principle in *Nidanasthana*, whereas its detailed management with different types described in *chikitsasthana*. (1, 2) Different treatment modalities has been described for the *jwara*. As *Agni dushti* is the prime cause in manifestation of *jwara*. Diet is being equally important as that of medicine. *Jwara* occurs due to the depletion of the digestive fire leading to the formation of *aama*. In *Charak samhita* different diet and drinks have been described as per the condition of *jwara*. *Siddha jala* (medicated drinks) has been

described in *jwara* such as *ushna jala* in *vata kapha jwara*, *tiktaka shruta sheeta jala* in *madyaja* and *paittika jwara*, *shadanga Paneeya* in all kinds of *jwara*. *Shadanga* contains six drugs, viz., *Musta*, *Parpatak*, *Usheera*, *Chandana*, *Uddichya*, *Nagar*. This combination is unique, and helpful in all kinds of *jwara*.

Aim

To understand the applicability of *Shadanga Paneeya* in all kinds of *Jwara*.

Material and methods

For this conceptual study *Ayurveda Samhitas* – *Charaka Samhita*, *Sushruta Samhita*, *Bhavaprakash nighantu books of Dravyaguna vignana*, and online journals in which study of the concern drug has been carried out have been re-viewed.

Limitation: The data published in different articles about these drugs has been studied in vitro, no human trials had been done, so here interpretation has made on the basis of that data.

Observations

Charaka samhita and *Sushruta samhita* both consider the origin of *jwara* is from lord *Shiva*. *Jwara* is considered as supreme among all the diseases named by different name in different creature. (4, 5) Due to presence of devotional power in human being they can tolerate the fever, but rest of all animals could not survive once get afflicted by fever. (5)

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Etiopathogenesis of fever

Nidana(Causitive factor)

Charaka samhita: (6) In nidanasthana there is description about eight types of jwara. The Strotas involved in occurrence of jwara is Rasavaha and Swedavaha. Nidana, samprapti and laxanas have been described separately for vataj, pittaja, kaphaja, Dwandaja, sannipataja jwara. Vishamprajanana and prajata mithyopachara are also elaborated as a causes for jwara.

In Sushruta samhita the common causative factor for all kinds of jwara has been described viz., Snehadi karma mithyayoga (improper application of oleation, sudation,), atiyoga(exceeds application of oleation, sudation), Abhighat(Trauma), Rogothana prapakata(at the occurrence of disease), shrama(fatigue), kshaya(wasting of body tissues), ajeerna(indigestion), visha(poison), satmya viparyaya(ingestion of unwholesome food), rutu viparyaya(not following the seasonal regimen), oushadhi pushpa gandha(inhale the medicated flowers), shoka(grief), nakshatrapeda(curse of stars), abhichar(improper social behaviour), abhishap(curse from other people), manasika abhishang(psychological disturbances), Apprajata(not having normal labour), ahita sevam prajata(not following the post natal care), stanyaavataran(lactation).(7)

Purvarupa (Prodromal sign)

In Charaka samhita the prodromal signs of fever have been described as, aalasya, nayanasrava,

jrumbha, gourava, klama, bhakta dwesha, avipaka, aasyavairasya, balahani, varnahani, alpa sheela vaikruta.(8)

The general prodromal sign and symptoms have been described in Sushruta samhita, along with the specific prodromal sign and symptoms in concern with involved doshas are described.

- Vata- jrumbha (yawning)
- Pitta- nayan dah (burning sensation in eyes)
- Kapha- na anna abhinandan(no desire for food)

The sign and symptoms of vataj pittaja and kaphaja jwara have been described in detail. Dwandwaja jwaras description has been also described. (9)

Jwara samanya laxana

Swedavrodha, Santap, Sarvangagrahan.

Jwara samprapti:

Charaka samhita describes the samprapti of jwara with its nidana in detail with individual type in nidanasthana. Furthermore in chikitsasthana the common samprapti have been described.

In Sushruta samhita common samprapti have been described. The vitiated doshas when pulls out the aamaashaya ushma into rasavaha and swedavaha strotas. The obstruction occurs in a strotas, agni get diminished, and manifest the jwara.

Samanya jwara chikitsa

The principles of jwara chikitsa have been described in both samhitas.

Table no. 1

Stage	Charaka Samhita(10)	Sushruta samhita (11)
Purvarupa	Laghu, apatarpana	Vataj- Pure ghee Pittaj- Virechana Kaphaja – Mrudu Prachachardhana
Aamashaya samuttha:	kashayapana, abhyanga, sneha, sweda, pradeha, parisheka, lepana, vaman, virechana, aasthapana, anuvasan, nasya, dhupa, dhuma, ksheerabhojana.	Apatarpan, Vaman, Langhana, Ushnambu Vaman, Viechana, Aasthapana, shirovirechana
Jeerna jwara:	Sarpi pana	Sarpi pana

Table no. 2: Siddha jala (Medicated drinks) to be administered in jwara

Ushna jala	Vata kapha jwara
Tiktaka shruta sheeta jala	Madyaja and paittika jwara
Shadanga paneeya	All kinds of fever

In Charaka samhita siddha jala (medicated drinks) has been described as above. Ushna jala and Tiktaka shruta sheeta jala is advisable among specific jwara, but the Shadanga paneeya is useful in all kinds of jwara.(3)

Shadanga Paniya

The medicated water prepared with six medicinal herbs viz., musta, parpatak, usheera, chandana, uddichya, nagar is known as Shadanga paneeya.

Table no.3: Properties of six drugs:

	Musta(12)	Parpatak(13)	Usheera(14)	Chandan(15)	Udichya(16)	Nagar(17)
Latin	Cyperus rotundus Linn.	Fumaria parviflora Lam.	Vetiveria zizanoides (Linn) Nash	Santalum album Linn	Pavonia odorata Willd	Zingiber officinale Roscoe
Family	Cyperaceae	Fumariaceae	Graminae	Santalaceae	Malvaceae	Scitaminae
Rasa	Tikta, katu kashaya	Tikta	Tikta madhura	Tikta madhura	Tikta	Katu

Veerya	Sheeta	Sheeta	Sheeta	Sheeta	Sheeta	Ushna
Vipaka	Katu	Katu	Katu	Katu	Katu	Madhura
Guna	Ruksha laghu	Laghu	Ruksha laghu	Ruksha laghu	Ruksha laghu	Guru, ruksha, tikshna
Dosha	Kapha pittahara,	Kaphapittahara,	Kaphapittahara,	Kaphapittahara,	kaphapittahara	Vata kaphahara,
Karma	grahi, dipana, pachana, lekhana	trishna nigravana, grahi	pachana, stambhana	varnya, dahaprashaman	Deepan, pachan, hrallas.	dipana, bhedan

The overall analysis of the drugs among *Shadanga paneeya* is as follows.

Rasa (Taste)

Among the six drugs the predominant *rasa* is *tikta* (bitter), then *madhura* (sweet) and followed by *katu* (pungent) and *kashay* (astringent). *Tikta rasa* is the superior to mitigate the fever as it does the *aamapachana*, *aamashayakledanashana*, *agnideepaka*. *Shadanga paneeya* is having dominancy of *tikta rasa*, therefore useful to counteract the *samprapti* of *jwara*. As per *doshic* predominance, *tikta* mitigate the *pitta dosha*, *Kashaya* mitigate the *kapha dosha* and *madhura* mitigate the *vata dosha*. Therefore on analysis of *rasa* combination of *shadanga paneeya*, it is useful in all kinds of *jwara*.

Guna (Properties)

Among the six drugs the predominant *guna* are *laghu*, *ruksha*, followed by *guru* and *teekshna*. *Laghu* and *Ruksha guna* having the predominance of *vayu*, *aakash* and *agni mahabhutas*. These properties are useful in depletion of *aama*. Due to these properties it is useful in *santarpanotha jwara*.

Guru property is useful in nourishment as it is having *prithvi* and *aapa mahabhuta* predominance. Due to this *guna* it is useful in *kshataj*, *kshajay* and *vataj jwara*. *Teekshna guna* by its nature works rapidly in body. Therefore combination of these properties in *shadanga paneeya* is applicable in all kinds of *jwara*.

Veerya (Potency)

The predominance of *sheeta veerya* is present among the drugs of *shadanga paneeya* along with lesser proportion of *ushna veerya*. *Jwara* is disease of *ushna* in nature therefore *sheeta veerya* drugs are useful in it. Also in conditions like *sheetapurvak jwara* (fever with chills) *shadanga paneeya* is useful as it contain *ushna veerya* drug also.

Visha (poison) are having *ushna veerya* in nature therefore *shadanga paneeya* by virtue of its *sheeta veerya* dominancy useful in *vishaj jwara* (fever due to poison or poisonous contact).

Vipaka

The drugs of *shadanga paneeya* having combination of *katu* and *madhura vipaka* with dominancy of *katu vipaka*. As *katu vipaka* does the *aamapachana*, *aamashayakledanashana* useful in all kinds of *jwara*. *Madhura vipaka* is useful in *vataj*, *bhayaja*, *shokaj jwara*. Therefore the *vipaka*

combination of *shadanga paneeya* is present in such a way that it is useful in all kinds of *jwara*.

Karma (Pharmacological action)

The pharmacological action of each drug is useful in breaking the etiopathogenesis of *jwara*. Almost all the drugs does the *deepan pachan* by which they are depleting *aama*. *Parpataka* (13) does the *trishna nigravana* (pacifies the thirst), *Chandana* (15) does the *dah prashaman* (mitigates burning sensation), *Musta* (12) does the *aamapachana*, *Usheera* (14) does the *pachana* with *pittashaman*. *Uddichya* (16) does the *dah prashaman* (mitigates burning sensation), *Shunthi* (17) does the *aamapachana*, *agnideepana*.

So here the combination involved in *shadanga paneeya* is effective in dengue, typhoid and exhibiting antimalarial effect. These drugs are also exhibiting the antimicrobial effect by which they are useful in pyrexia caused by the infections of those microbes.

Advance researches has also revealed the antipyretic effect of these drugs.

Musta (Cyperus rotundus Linn.) (18)

The *Cyperus rotundus* tubers from which the isolation of patchoulone, caryophyllene or-oxide, 10, 12-peroxycalamenene and 4, 7-dimethyl-1-tetralone has been done. These compounds had shown the antimalarial activities as the higher efficacy at EC₅₀ 2.33 × 10⁻⁶ M

The *Cyperus* oil had shown the antibacterial activity among various micro organisms. The microorganisms viz., *Klebsiella pneumoniae*, *Proteus vulgaris*, *Streptococcus pyogenes*, *E. coli* and *P. aeruginosa*, *S. Aureus* were studied by using inhibition zone method (Aromatogram). The MIC and MBC for each microbe were estimated. The oil of *Cyperus rotundus* was shown an efficacy over the bacteria, in which efficacy was more among the Gram-positive bacteria, as compared to Gram-negative bacteria. The bacteria leads to the infection in the body. Any infection in the body leads to the pyrexia, as *musta* has shown antibacterial activity for various micro organisms the drug is useful for pyrexia.

Parpataka (Fumaria parviflora Lam.)(19)

Fumaria indica (*parviflora*) possesses the two major phytochemicals Narlumicine and Oxysanguinarine, these two are efficacious in the inhibition of dengue virus (DENV). The binding affinity is more than eight kcal/mol against DENV4-NS4B. These phytochemicals are highly reactive in the

binding the pocket of DENV4- NS4B, based on ELUMO, EHOMO and band energy gap.

Usheera (*Vetiveria zizanoides* (Linn.) Nash.) (20)

Extract of *Vetiveria zizanoides* at 75 mg, 150mg and 300 mg/ kg dose had shown the significant reduction in the elevated temperature which was occurred due to the subcutaneous injection of yeast suspension (10ml/kg body weight).

Chandana (*Santalum album* Linn.):(21)

The oil of the *Santalum album* had shown an effective antibacterial effect against Methicillin resistant *Staphylococcus aureus* and antimycotic resistant *Candida* species. The oil also exhibits the inhibition against Herpes simplex virus Type 1. The santalol has shown the anti-influenza activity against H3N2 virus. Methanol extract of *Santalum album* effective against *Bacillus subtilis*, *Salmonella typhi*, *Staphylococcus aureus* and *Pseudomonas aeruginosa* and highly active against *Candida albicans*.

Uddichya (*Pavonia odorata* Willd.) (22)

Pavonia odorata has shown the good antimicrobial activity against *S.aureus*, *Diplococcus pneumonia*, *Chrysosporium indicum* and *Botrydiplodia* sps.

Nagar (*Zingiber officinale* Roscoe.)(23)

An ethanolic extract of *Zingiber officinale* was shown the anti-inflammatory, analgesic, antipyretic, antimicrobial and hypoglycaemic activities. In rats, the extract of *Zingiber officinale* had shown the reduction in the carrageenan-induced paw swelling and yeast-induced fever. The *Zingiber officinale* had shown the efficacy in the inhibition of the growth of both Gram-positive and Gram negative bacteria.

Discussion

In *Charaka samhita nidana* has been described separately for each types of fever. In *Sushruta samhita* the common cause for *nija jwara* have been described. *Stanyavarana* as a cause for *jwara* have been described in *Sushruta samhita*. Both the treatise considers the *rasawaha* and *swedavaha strotas* involvement in occurrence of fever. The description of specific prodromal signs as per the involvement of *doshas* is the contribution of *Sushruta samhita*. The treatment principle as per prodromal signs, *aamavastha* has been described in both *samhitas*. In *Sushruta samhita* administration of specific medicine as per the *dosha* involvement in prodromal stage have been described viz., *vataj-* pure ghee, *pittaj-* *virechana*, *kaphaja* – *mrudu prachachardhana*. The description about treatment as per the stages viz., *purvarupa*, *Aamashaya samuttha*, *jeerna jwara* have been described in both *samhitas*.

The paneeya has been mentioned in *charaka samhita* in *jwara* as, as *Ushna jala* in *vata kapha jwara*, *Tiktaka shruta sheeta jala* in *madyaja* and *paittika jwara*, *Shadanga Paneeya* in all kinds of *jwara*. *Shadanga* contains six drugs, viz., *musta*, *parpatak*,

usheera, *chandana*, *uddichya*, *nagar*. The conceptual analysis of *shadanga paneeya* in context with their *Rasa*, *Guna*, *Veerya*, *Vipaka*, *Karma* highlights the applicability in all kinds of *jwara*.

Shadanga contains six drugs, viz., *musta*, *parpatak*, *usheera*, *chandana*, *uddichya*, *nagar*. The every drug had shown the antimicrobial effect in different spectrum. The micro organisms are the responsible for the infection which in turns induces the fever. Hence the inhibition of the microorganism will control the infection and helpful in the reduction of fever.

The *Cyperus rotundus* was shown an efficacy over the Gram-positive bacteria, and Gram-negative bacteria. *Parpataka* is efficacious in the inhibition of dengue virus (DENV). *Usheera* is efficacious in fever due to yeast. *Uddichhya* is effective against *S.aureus*, *Diplococcus pneumonia*, *Chrysosporium indicum* and *Botrydiplodia* sps. The *Santalum album* is effective against Methicillin resistant *Staphylococcus aureus* and antimycotic resistant *Candida* species Herpes simplex virus Type 1e, H3N2 virus, *Bacillus subtilis*, *Salmonella typhi*, *Staphylococcus aureus* and *Pseudomonas aeruginosa*, *Candida albicans*. *Zingiber officinale* had shown the reduction in yeast-induced fever and shows the inhibition of the growth of both Gram-positive and Gram negative bacteria.

Hence the drugs of *shadanga paneeya* have also shown in researches the antipyretic effect ranging from dengue, malaria, typhoid to exhibition of antimicrobial effect.

Conclusion

Shadanga paneeya is a unique combination of different herbs, which by virtue of its combination of *different Rasa, Guna, Veerya, Vipaka* useful in all kinds of *jwara*. The combination possesses the antipyretic effect in all kinds of fever which are originating from viral, bacterial and parasitic origin. Therefore this is to conclude that *shadanga paneeya* as adjuvant medicated liquid is useful in all kinds of *jwara*.

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