



Research Article

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PHARMACEUTICAL STUDY OF DHANANJYADI GUTIKA

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ABSTRACT

Aim- Kasa is one of the pranavaha srothodusti janita vyadhi (disorders of respiratory system) which hinders the normal life style and make the patient to visit physician often. Present study aims to find out effective and simple drug for treatment of kasa. Numbers of preparations are mentioned in ayurveda classics for kasa, one of such yoga is mentioned in kasa chikitsa by Yogaratnakara by name Dhananjyadi gutika. Method- Its chief constituents are dhananjya (bark of arjuna tree), trijataka (containing equal parts of dalchini, ela and tejpatra viz inner bark of Cinnamomum, *Elettaria cardamomum*, *Cinnamomum tamala* respectively), pippali moola (root of *Piper longum*) and trikatu (equal parts of combination of *Zingiber officinale*, *Piper nigrum*, *Piper longum*). Each drug was taken in equal quantity and the mixture was triturated with fresh juice of adraka (*Zingiber officinale*) to obtain a uniform paste. Result- pills of 1 gunja (125 mg) were made by using digital scale later pills was kept under indirect sunlight for drying. Discussion- carefully looking after the properties of drugs included in this yoga it can concluded that dhananjyadi gutika is more effective in vataja and kaphaja kasa. Conclusion- dhananjyadi gutika is poly herbal combination having simple yet effective contents easy to assemble and also suitable to patients of all age group.

Keywords: Kasa, Yogaratnakara, Dhananjyadi gutika.

INTRODUCTION

Respiratory complaints are well defined clinical conditions in the contemporary medical science. They are classified under the broader heading of Respiratory tract disorders, which is a group of different symptoms and diseases. In classics, descriptions of disease Kasa clearly correlate with cough and its Patho-physiology exactly correlates with the mechanism of cough reflex¹. Lozenges are the common form of drug mentioned in modern pharmaceutical science that is intended to exert a local effect in the mouth or throat. Lozenges are commonly used to treat sore throat or to control coughing in the common cold². Yogaratnakara has mentioned some gutikas that can be used orally for sucking, those decreases the bout of cough reflex by virtue of their local action. Dhananjyadi gutika is one such yoga mentioned in kasa chikitsa by yogaratnakara³. It is a simple preparation having easily available contents and also very easy to make.

MATERIAL AND METHODS

The material and methods adopted in the preparation of Dhananjyadi gutika are as follows-

1. Preparation/collection of powders of drugs and preparation of adraka swarasa.
2. Preparation of homogenous mixture and its Bhavana (trituration) with adraka swarasa
3. Preparation of pills

Preparation/Collection of Powders of Drugs And Preparation of Adraka Swarasa

Each drug was taken in equal quantity of 5 g each.

Table 1: The constituents of Dhananjyadi gutika

S. No.	Name of the Drug	Quantity
1	Arjuna churna	5 gm
2	Trijataka churna	5 gm
3	Pippalimoola churna	5 gm
4	Trikatu	5 gm
5	Adraka swarasa	Q.S.



Figure 1: Arjuna Churna



Figure 2: Trijataka Churna

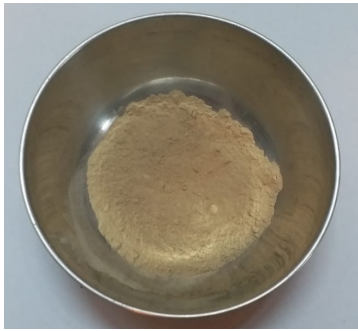


Figure 3: Pippalimolla Churna

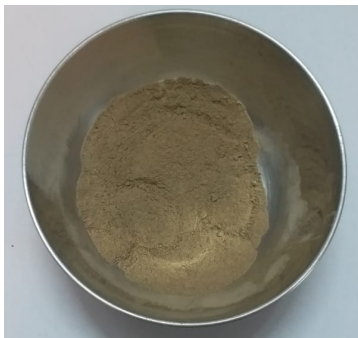


Figure 4: Trikatu Churna

Preparation of Adraka Swarasa

Fresh rhizomes of adraka were purchased from local market, washed thoroughly, peeled off, and made into kalka (fine paste) and fresh swarasa (juice) was obtained by squeezing it through double layered cloth⁴.



Figure 5: adraka rhizome



Figure 6: adraka kalka



Figure 7: adraka swarasa

Preparation of Homogenous Mixture and its Bhavana (Trituration) with Adraka Swarasa

All the above churnas (fine powders) were added in Khalva yantra (mortar and pestle) and mixed thoroughly to obtain a homogenous mixture. Fresh adraka swarasa was added slowly and mixture was triturated continuously for 3 hours, little amount of swarasa was added to it at regular interval to keep the mixture moist enough to aid uninterrupted bhavana (no specific time was mentioned in original reference regarding the duration of bhavana)



Figure 7: Homogenous mixture



Figure 8: Bhavana with adraka swarasa

Preparation of Pills

After the bhavana procedure was over the mixture gets converted into kalka form. Now pills of 125 mg were prepared manually by using pocket sized scale of calibration 200 mg x .01 g.



Figure 9: Homogenous mixture after 3 hours of bhavana

After pills were made they were kept under indirect sunlight until they were devoid of moisture content.



Figure 10: Showing the pills and drying of pills under indirect Sunlight

RESULTS

After the pills were made, 10 pills were selected randomly and weighted separately. The sum total of the weight was divided by 10 to get the mean weight of the pills

Mean weight of tablets = sum total of weight of 10 pills / no. of pills

Table 2: The weight of 10 pills and mean weight of the pills

S. No.	Weight of individual pill
1	130 mg
2	110 mg
3	140 mg
4	110 mg
5	100 mg
6	140 mg
7	120 mg
8	130 mg
9	120 mg
10	150 mg
Total	1250 mg

Mean weight of Dhananjyadi gutika = $1250/10=125$ mg

Based on above table we can say that that weight of pills prepared is $125 \text{ mg} \pm 10$.



Figure 11: Weight of a pill on digital scale

Table 3: Organoleptic test of Dhananjyadi gutika

Parameter	Observation
Colour (Rupa)	Light brown
Taste (Rasa)	Trikatu and taste of adraka swarasa (katu rasa predominates)
Smell (Gandha)	Smell of trikatu
Touch (Sparsha)	Smooth

DISCUSSION

Dhananjyadi gutika is polyherbal combination drug mentioned by yogaratnakara in kasa roga adhikara. It is having arjuna, trijataka, pippalimoola and trikatu as main constituents with bhavana of adraka swarasa. Here author hasn't mentioned any particular kasa in which it can be used. Arjuna pacifies kapha and pitta and also useful in kshata and kshaya (Phthisis)⁵. Trijataka is said as swarabheda swasa kasa mukhdosha nivarana by yogaratnakara⁶. Pippalimoola is also helpful in respiratory disorders and phthisis, it pacifies kapha and vata⁷. Trikatu pacifies cough and other respiratory disorders⁸; yogaratnakara has mentioned it has vata-kaphahara⁹. Adraka is having usna veerya (hot potency) with madhura vipaka and vata-kaphara properties¹⁰. Maximum drugs in this combination are having Vata-kaphara property with usna guna and also deepana- pachna properties, although it's usna guna is neutralised by sheeta veerya of arjuna and madhura veepaka of adraka swarasa. It's role in Kshata and Kshaya kasa is attributed by virtue of hridya (cardiac tonic) and raktastambhana (haemostatic) guna of arjuna in particular^{11,12}. So based on above discussion we can say that dhananjyadi gutika is more effective in vataja and kaphaja kasa with certain role in other types of kasa.

An important point regarding preparing adraka swarasa is, when adraka swarasa is kept undisturbed for long time a white colour starchy material tends to get settled down, so every time fresh and only required quantity of adraka swarasa should be prepared to avoid any disturbance in homogenous nature of adraka swarasa.

While making pills one point that should be kept in mind is the loss of moisture after exposing the pills to sunlight, so the pills should be made of slightly more weight than 125 mg so that after drying stable weight around 125 mg mark can be obtained.

CONCLUSION

Dhananjyadi gutika is a simple poly herbal drug mentioned in kasa chikitsa by yogaratnakara having simple and easily available contents. Its pharmaceutical procedure is very easy and also it takes only 1-2 days to prepare this medicine. It is a convenient drug for all age groups as mode of administration is simple. It can be an important drug which can act as an alternative to other available drugs in market both in Ayurveda and contemporary pharmaceuticals.

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