

GUDA PRAYOGA IN CHAKRADATTA

Remya R. Nath^{1*},

Veena G. Rao²

¹PG scholar, Department of PG studies in Panchakarma, JSS Ayurveda Medical College, Mysuru, Karnataka.

²HOD, Professor, Department of PG studies in Panchakarma, JSS Ayurveda Medical College, Mysuru, Karnataka.

ABSTRACT :

Chakradatta, also known as *Chikitsasangraha* is written by Chakrapani Dutta belonged to the Eastern part of India in the 11th century. The legacy of therapeutic principles specific for the disease recommended by Chakradatta has continued even today among the practitioners. Numbers of single drug remedies are documented in this book. In almost all the chapters Acharya quoted a combination of *jaggery*. Among them many are still in practice. Here an attempt has been made to analyse the *Gudaprayoga* in Chakradatta. Jaggery forms the backbone of Asavas and Arishtas. It is good substitute for sugar. Not only that, it comes with a bunch of its own unique health benefits. Jaggery is extensively used in many Indian cuisines also.

Need Of The Study: To add additional information about *guda prayoga* in Ayurvedic medical practice.

Keywords: *Gudaprayoga*, Chakradatta, Jaggery

INTRODUCTION: *Guda* is considered as *ahara dravya* as well as *aushadha dravya*. *Guda* is included under *ikshu varga* by *Acharyas*. *Ikshu* is botanically identified as *Saccharum officinarum*, belonging to family Poaceae. It is explained in all *brihatrayees*, *Nighantu* and all *dravyaguna* texts. *Charaka Samhita* included it under *Shukra shodana*. He also mentioned *nava guda* (newly prepared) and *purana guda* (one year before prepared) *Ashtanga Hridaya* mentioned *guda* as *mutra sodhana* and *hrudya*. Old jaggery has enhanced qualities and is most wholesome.¹

Guda has many synonyms like *vrushya* based on action, *rasala* and *swadu* based on its *rasa* and *shishupriya* based on

likeness by children. Jaggery is used as *shotahara*, *ruchya*, *balya*, *brimhana*, *vrushya*, *raktasodhaka* and *mutrasodhaka*. Action of *guda* according to various *acharyas* are briefed in table 1. *Guda* is *madhura rasa*, *guru* and *snigdha guna*, *ushna veerya*, *madhura vipaka*, *vatapitta samaka* and *kapha vardhaka* in *doshakarmata*. According to *Kaiyadeva Nighantu* it is *katu rasa* and *laghu guna*. *Bhavaprakasa Nighantu* opines that it alleviates *kapha* when it is taken along with *ardraka* and alleviates *pitta* if taken along with *hareetaki*. Taking radish and jaggery along with fish is said to be *virudhahara*. *Guda* is also used as *anupana* along with *Gandharvahasthadi kashaya*, *pathyashadangam kashaya* etc.

Table No: 1 Action of guda according to different Acharyas

<i>Karma</i>	<i>A.H</i>	<i>B.Ni</i>	<i>R. Ni</i>	<i>K. Ni</i>	<i>P.Ni</i>	<i>S.Ni</i>	<i>M.Ni</i>	<i>Ni.A</i>
<i>Mootrashodaka</i>	+	+	+	+	+	+	+	-
<i>Vrushya</i>	-	-	-	-	+	+	-	-
<i>Dhatu vardhaka</i>	-	-	-	+	-	-	-	-

<i>Krimighna</i>	—	+	—	—	—	+	+	—
<i>Brimhana</i>	—	—	—	+	—	—	—	+
<i>Balya</i>	—	—	—	—	+	—	+	—
<i>Veeryavardhaka</i>	+	+	—	—	—	—	—	—
<i>Hridya</i>	—	—	+	—	—	—	+	—
<i>Ruchya</i>	—	—	+	+	—	—	—	—
<i>Raktashodhaka</i>	—	—	—	—	—	—	+	—

Guda is the synonym of *snuhi*, *Euphorbia nivula*, Euphorbiaceae family so *adhoguda*² means *Euphorbia nivulia* or *Euphorbia acauis*. *Adhoguda* is included under *moolini dravya* for *virechana*. *Chakrapani* has explained *adhoguda* as *vridhadaaraka*, *Argyaria petalooides*, Convolvulaceae family. But *Argyaria petalooides* is not used as purgative, so it is safe to rule out it. The roots of both Euphorbias are very good purgatives.

Table No: 2 Nutritive value of Jaggery, per 100 gm.³

Particulars	Value (in %)
Sucrose	65-85
Reducing sugar	10-15
Proteins	0.4
Fat	0.1
Total minerals	0.6-0.10
Calcium	8
Phosphorus	4
Iron	11
Moisture	3-10
Energy	383

It is rich in fiber. It also contain traces of vitamin and amino acids. 100gm of jaggery gives 383 Kcal of energy. Maharashtra, Andhra Pradesh, Karnataka Tamil Nadu states produce more jaggery in India. Mandya is the largest producer of

The scientific or technical definition of jaggery is an amorphous form of unrefined and non-distilled sugar prepared from the sap or juice of plants that contains a considerable amount of sucrose or sugar. This includes the plants like sugarcane and certain palms like date palms and Palmyra. Chemically it is defined as C₁₂H₂₂ O₁₂. Nutritive value of jaggery per 100gm is given in table 2.

Table no: 3 Jaggery indicated in some diseases in Folk medicine⁴

Disease	Anupana	Dose
Cold	Liquid jaggery with paste of green betel leaves,	1 tsp twice daily
Hiccups	Liquid jaggery with dry ginger powder	1 tsp with warm water
High Blood pressure	Liquid jaggery	for 15 days daily ; not for

jaggery in Karnataka and is also called as Sugar city. Guda has nearly 30 vernacular names which includes foreign names. This shows guda is famous worldwide. A brief summary of *gudaprayoga* in folk medicine is given in table 3.

		next 15 days, Continue same till 3 months
Menstrual Disorder	Jaggery with milk	1 tsp twice daily
Anaemia	Jaggery	1 tsp twice daily
Flatulence	Jaggery	10 gm after food
Cough	Jaggery with black pepper	1 tsp with warm water
Headache	Mix 10 gm jiggery + 6 gm sesame seeds + 2-3 drops milk	Apply paste on forehead
If a glass piece pierces skin, smear hot melted jaggery. When it became cold, it will suck out the glass.		

There are five varieties of Jaggery mentioned based on structure ie. Sugarcane Jaggery, Date Palm Jaggery, Palmyra jaggery, Toddy Palm Jaggery and other palm Jaggery.⁵

Jaggery is the richest source of phenolic compounds such as phenolic acids, flavonoids, and different glycoside.⁶

Method of preparation: Guda is the product obtained on concentrating sugarcane juice with or without prior purification in to a solid or semi solid state. In the manufacture of guda three main operations involved viz., extraction of juice from the cane, purification of juice and concentration of juice into guda. Cane should be soft, light coloured, ripe and low fibre and rich in sucrose. Coarse suspended impurities from the juice are removed by straining and then the juice is boiled. When the juice is slowly heated upto the boiling temperature, chemical clarifants are added to flocculate the colloids present in it. After clarification, the cane juice is boiled vigorously to 115-117 degree celcius, with constant stirring and then concentrated into thick almost semi-solid mass, which on cooling solidifies into guda. Froathing which takes place during boiling is controlled by frequent sprinkling of an aqueous extract

of crushed castor seed. Guda is produced in three different forms viz as lump of various sizes and shapes, powder and semi solid forms. *Guda* usually ranges in colour from yellowish to dark brown and its quality varies widely.

Storage of jaggery under low temperature maintains freshness in flavour and no loss in sucrose content. Drying of *guda* in shade during summer to a moisture content less than 6% and storage of dried *guda* in polythene bags improves shelf life of jaggery.

Various *gudaprayoga* along with indication are mentioned in table 4.

Table No:4 *Gudaprayoga in different diseases mentioned in Chakradatta*⁷

Chakradatta is one of the most reliable sources of clinical comprehension among Ayurvedic physicians. Entire *Chakradatta* is composed of 4800 verses which are divided into 79 chapters.⁸ First 65 chapters are in the order of *Madhava Nidana* who have dealt only with the diagnostics whereas *Chakradatta* only deals with therapeutics. Two commentaries are available on *Chakradatta*, one *Ratnaprabha* authored by *Nischalakara* in the 13th century A.D. and another authored by *Shivadasa Sen* in 15th century.⁹

	<i>Guda</i> with	Indication	Reference
1.	<i>Pippali</i>	<i>Kasa, ajeerna, aruchi, swasa, hrit roga, krimi</i>	1/204

		<i>pandu, jeerna jwara, agnisaada</i>	
2.	<i>Ajaji</i>	<i>Vishama jwara, agnimandya, vataroga</i>	1/214
3.	<i>Katu taila</i>	<i>Swasa(trisaptaaha prayoga:27 days, both equal quantity)</i>	12/14
4.	<i>Abhaya</i>	<i>Arsas, pitta sleshma prasamani,kandu</i>	5/14
5.	<i>Abhaya</i>	<i>Pleehodara; vatarakta (Anupana : Kashaya of Amrita)</i>	23/8
6.	<i>Amrita</i>	<i>Vatarakta</i>	23/20
7.	<i>Ghrita</i>	<i>Vatarakta, Kapharakta prasamanam, Hridyam, visarpa</i>	23/18
8.	<i>Vardhamana pippali</i>	<i>Oorusthambha</i>	24/8
9.	<i>Dadhi</i>	<i>Vataja trisha</i>	16/1
10.	<i>Ardhraka</i>	<i>Mada, Moorcha, Kasa, Kamala,Unmada</i>	17/10
11.	<i>Koosmanda Rasa</i>	<i>Mada due to Madana and Laksha</i>	18/20
12.	<i>Mandoora</i>	<i>Parinamashoola</i>	27/32
13.	<i>Draksha</i>	For <i>virechana</i> in <i>Pittaja gulma</i> due to <i>Snigdha, ushna bhojana</i>	30/16
14.	<i>Bilwa</i>	<i>Rakta atisara, ama shoola, Vibandha, Kukshi roga</i>	3/67
15.	<i>Triphala kashaya</i>	<i>Vishama jwara</i>	1/208
16.	<i>Arjuna choorna</i>	<i>Hridroga (Anupana: Milk)</i>	31/10
17.	<i>Amalaki</i>	<i>Vrishyam, Sramaghnam, Tarpanam, Raktapitta, Daha, Shoola, Mootrakrichram</i>	32/8
18.	<i>Varuna twak kashaya</i>	<i>Asmari, Vasthishoola</i>	34/23
19.	<i>Taala pushpa kshara</i>	<i>Pleeharoga</i>	38/4
20.	<i>Ardraka rasa(fresh)</i>	<i>Sarvasothahara (with purana guda)</i>	39/12
21.	<i>Sunti choorna/ hareetaki</i>	<i>Swayathu, ama ajeerna, Shoolaghna, Vasthisodhanam</i>	39/16
22.	<i>Ardhraka/ Naagara/ Abhaya/ Pippali</i> (Daily increase 1 karsha for 1 paksha or 1 maasa)	<i>Sotha, pratisyaya, gala roga, asya roga, swasa, aruchi, peenasa, jeerna jwara, arsa, grahani roga, kaphavata roga</i>	39/17-18
23.	<i>Rajani choorna</i>	<i>Sleepada, Dadru (Anupana: Gomootra)</i>	42/12
24.	<i>Draksha</i> and	<i>Amlapitta (with Honey also)</i>	52/14

	<i>Abhaya</i>		
25.	<i>Sundi choorna</i> (<i>Nasya</i>)	<i>Hikka</i>	13/4
26.	<i>Amalaki/</i> <i>Deepyaka</i>	<i>Udarda</i>	51/3-4
27.	<i>Gudoochi</i>	<i>Vibandha</i>	23/8

DISCUSSION: From the above table we can conclude that *gudaprayoga* is indicated in *vatapradhana*, *pittapradhana* and *kaphapradhana* *vikaras*. By *ushna veerya* and *madhura rasa*, *guda* can be considered as *vatahara*, by *madhura rasa* it is *pittahara* and by *ushna veerya* it acts as *kaphahara* eventhough its is said to be *kaphavardhaka*. *Acharya* suggested appropriate adjuvant drugs along with *guda* according to the need of the condition. *Pittahara* drugs like *hareethaki*, *amrita*, *ghrita*, *draksha* etc are mentioned along with *guda* in *pittapradhana vyadhis* like *vatarakta*, *visarpa*, *pittaja gulma* etc. *Kaphahara* drugs like *pippali*, *ardhraka*, *katutaila* etc indicated in *kaphapradhana vyadhis* like *swasa*, *kasa*, *sotha* etc. *Ushnaveerya* of *kapha* helps in *kaphavilayana*. *Guda* is also indicated in *vataja trishna* along with *dadhi*. *Ushna veerya* acts as *vibandhaghna* also. *Madhura rasa* and *vipaka* makes it *ruchya* and *hridya*. Hence it is useful in *aruchi*. *Guda* helps in the *utklesa* of *krimi*. So that it can be easily expelled out. Hence it can be said that it is a unique drug having *santarpana* as well as *apatarpana* action. The use of *guda* in *panchakarma* is mentioned in various treatises. *Guda* increases the palatability of *virechana yogas*. Palatability is important for the proper action of *virechana*. *Virechana yogas* like *trivrit lehya*, *manibadra guda* etc contain *guda* as an important ingredient. It is used in *upanaha sweda* as *sothahara*. *Guda ardhraka nasya* is a very

popularly practicing yoga in sinusitis. It is one of ingredient in *vaitarana basti* and *kshara basti*. If *dushta rakta* is still present after *jaloukavacharana*, it must be made to flow out by the application of the paste of turmeric, jaggery and honey at the bite spot. Anti inflammatory action of *guda* is shown in the above sentences.¹⁰

Guda is also used in some of the classical preparations like *Shatavari gulam*, *Kalyanaka gulam*, *Manibhadra gulam*, *Vyoshadi vatakam* etc

There are few researches on *guda* like Cytoprotective and antioxidant activity studies of jaggery sugar, Enhanced translocation of particles from lungs by jaggery, Jaggery protects hepatorenal injury induced acute exposure to carbon tetrachloride in Wister rats.

CONCLUSION: Simple and cost effective single remedies mentioned in *Chakradatta* is inimitable. The review has focussed on *guda prayoga* in different diseases. It has been observed that some of the combination mentioned in above table are under practice and some are not. From the above table we can see that *gudaprayoga* is indicated in almost all systems of the body. It is the need of the hour to scientifically validate the *gudaprayogas* in different clinical conditions or diseases.

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Abbreviations:

A.H Ashtanga Hridaya
B.Ni Bhavaprakasa Nigandu
R. Ni Raja Nigandu
P. Ni Priya Nigandu
S. Ni Sodhala Nigandu

Ni. A Nigandu Adarsh
M. Ni Madanapala Nigandu
K. Ni Kaiyadeva Nigandu

Corresponding author: Remya R. Nath, PG scholar, Department of PG studies in Panchakarma, JSS Ayurveda Medical College, Lalithadripura Road, Alanahally, Mysuru-28,
Karnataka.drremyarnath@gmail.com

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