Dashanga Guggulu a polyherbal formulation for Obesity - A Review

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ABSTRACT

In Ayurvedic pharmaceutics Guggulu Kalpa is very known and unique preparation. Chief component of this preparation is Guggulu (an exudate Commiphera mukul). It is one of the most important drug used since Vedic period. In Ayurveda practice Guggulu Kalpa are very popular formulation e.g. Yograjguggulu, Trayodashangguggulu, Lakshadiguggulu etc. In this Kalpas, Dashanga Guggulu is also an important preparation. It is commonly used in Medoroga, Kaphajrogas and Amavata. Present review explains the pharmacological potential of Dashang Guggulu in obesity along with the other pharmacological activities of the parts used of each ingredient in the formulation. This article helps the researcher and practitioner to explore more about this important Guggul Kalpa.

Key words: Dashang Guggulu, Hyperlipidemia, Kapha, Medoroga, Amavata.

INTRODUCTION

In Ayurveda there are lots of pharmaceutical preparations are mentioned for treatment of obesity. Dashang Guggulu is one of the important Guggulu Kalpa used for Medoroga (obesity). It is also similar with Navak Guggulu mentioned in Ayurvedic literature. Guggulu is the chief ingredient of all Guggulu Kalpas. Some known Guggulu Kalpas are Yograj Guggulu, Lakshadi Guggulu, Kaishor Guggulu etc.. Guggulu is an exudate obtained in form of oleoresin gum from plant stem of Commiphera mukul (Hook ex. Stocks). Engl. belonging to family Burseraceae. It is known to have analgesic, anti-inflammatory and antihyperlipidemic properties. As per Bhavprakasha, Dashanga Guggulu act therapeutically on Kapha and Medovikara. It also works in Amajvikara like Amavata also.

Method of preparation of Dashang Guggulu

Following ingredients are used for the preparation of Dashang Guggulu.

Ingredients

1. Purified Guggulu – 9 part.
2. Pippali (frt.) – 1 part.
3. Marich (frt.) – 1 part.
4. Shunthi (frt.) – 1 part.
5. Haritaki (frt.) – 1 part.
6. Vibhitaki (frt.) – 1 part.
7. Amalaki (frt.) – 1 part.
8. Nagarmotha (frt.) – 1 part.
10. Chitrakmoool (rt.) – 1 part

Powders of above herbs (number 2 to 10) are added in purified Guggulu and this mixture is pounded in mortar and pestle for properly mixing of all ingredients it should be hammered continuously.
During procedure of hammering small quantity of Ghee should be added for making mixture soft and non-adherent. Continuous hammering is very important for evenly distribution of the all ingredients as well as reducing particle size to make easily digestible and absorbable. There after, tablets are made from this gum like mixture either by hand or by tablet making machine.

**Table 1: Ingredients of the Dashang Guggulu and their pharmacological and therapeutic properties.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Sanskrit Name</th>
<th>Botanical name and Family</th>
<th>Part used</th>
<th>Rasadi Panchaka and Ayurvedic properties</th>
<th>Pharmacological properties</th>
</tr>
</thead>
</table>
**Guna** - Laghu, Ruksha, Tikshna, Vishad, Sara, Sukshma, Sugandhi (old Guggulu), Snigdha, Pichchhila (fresh guggulu)  
**Virya** - Ushana,  
**Vipak** - Katu ,  
**Prabhava** - Tridoshaka, Rasayana,  
**Doshaghnata** - Vatakaphashamak,  
**Rogaghnata** - Sandhivata, Amavata, Gandamala, Aapachi, Granthi, Medoroga, Vatavyadhi  
| 2.  | Pippali | B.N. - Piper longum Linn. Family - Piperaceae | Fruit, Roots | **Rasa** - Katu, madhur (fresh piper)  
**Guna** - Laghu, Snigdha, Tikshna, Veerya - Anushna sheet, sheet (fresh piper)  
**Vipaka** - Madhur,  
**Doshaghnata** - Kaphavatashamak, Kaphavata Vardhak (fresh piper)  
### 3. Maricha

**B.N.** - *Piper nigrum* Linn.  
**Family** - *Piperaceae*

- **Rasa** - *Katu,*  
- **Guna** - *Laghu,* *Teeksha,* *Ruksha,*  
- **Virya** - *Ushna,*  
- **Vipak** - *Katu,*  
- **Doshagnnata** - *Kaphavatashamak,*  
- **Rogagnnata** - *Hridaurbalya,* *Pratishyaya,* *Kasa,* *Swasa,* *Hikka,* *Shoola,* *Adhmana,* *Agnimandya,* *Vatavikar,* *Krimi,* *Pama,* *Tarunyapidika,* *Shothavednayuktavikar,* *Charmaroga.*

**Karma** - *Raktotkleshak,* *Lekhan,* *Nadiuttejaka,* *Lalasravajanana,* *Deepana,* *Pachana,* *Vatanulomak,* *Krimihar,*  
*Swedajanan,*[^12]

- Hepato-protective,[^13] Antifungal and Antimicrobial, Anti-inflammatory and analgesic.[^14]

[^13]: Hepato-protective,
[^14]: Antifungal and Antimicrobial, Anti-inflammatory and analgesic.

### 4. Shunthi

**B.N.** - *Zingiber officinale* Rose.  
**Family** - *Zingiberaceae*

- **Rasa** - *Katu,*  
- **Guna** - *Laghu,* *Snigdha* *(Shunthi),* *Guru,* *Ruksha,* *Teekshna* *(Ardraka),*  
- **Virya** - *Ushna,*  
- **Vipak** - *Katu* *(Ardraka),* *Madhur* *(Shunthi),*  
- **Doshagnnata** - *Kaphavatashamak,*  
- **Rogagnnata** – *Amavata,*  

- Hypo-lipidaemic,[^16] Hypoglycemic, Antiemetic, Cardiovascular and Antiplatelet.[^17]

[^16]: Hypo-lipidaemic,
[^17]: Hypoglycemic, Antiemetic, Cardiovascular and Antiplatelet.
Guna - Laghu, Ruksha, 
Virya - Ushna, 
Vipaka - Madhura, 
Prabhava- Tridoshashamak, 
Doshaghnata - Tridoshashamaka specially Vatashamaka, 
Rogaghnata - Vatavyadhi, Shotha - Vednayuktavikara, Netrabhishyanda, Agnimandya, Shoola, Anaha, Gulma, Vibandha, Udararoga, Arsha, Kamala, Yakritpleehavridhhi, Krimiroga, Kushtha, 
| 6. Vibhitak | B.N. - Terminalia bellirica (Gaertn.) Roxb. | Fruit | Rasa - Kashaya, 
Guna - Ruksha, Laghu. 
Virya - Ushna, 
Vipaka - Madhura, 
Antitussive and Antiasthmatic, Hypolipidemic and Anti-atherosclerosis. |
<table>
<thead>
<tr>
<th>Plant Family</th>
<th>Plant Name</th>
<th>Description</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combretaceae</td>
<td>B.N. - Phyllanthus emblica Linn. (syn. Emblica officinalis Gaertn.)</td>
<td>Fruit, seed, root bark, stem bark, leaf</td>
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<td></td>
<td>Family - Euphorbiaceae.</td>
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<td></td>
<td><strong>Doshaghnata</strong> - Tridoshashamaka specially Kaphashamaka,</td>
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<td></td>
<td><strong>Rogaghnata</strong> - Shotha-Vednayuktavikar, Palitya, Pratishyaya, Kasa, Shwasa, Swarabhanga, Arsha, Krimiroga,</td>
<td></td>
<td></td>
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<td></td>
<td><strong>Karma</strong> - Shothahara, Vednasthapana, Krishnikaran, Madak, Deepan, Anulomana, Krimighna, Rechana, Bhedana, Grahi, Vajikaran (seed), Chakshushya.</td>
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<td></td>
<td><strong>Guna</strong> - Guru, Ruksha, Sheeta.</td>
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<td><strong>Virya</strong> - Sheeta,</td>
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<td></td>
<td><strong>Virya</strong> - Sheeta,</td>
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<td></td>
<td><strong>Vipak</strong> - Madhura,</td>
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<td></td>
<td><strong>Doshaghnata</strong> - Tridoshashamaka specially Pittashamak,</td>
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<td></td>
<td><strong>Karma</strong> - Dahaprapashamana, Chakshushya, Keshya, Deepana, Anulomana, Hridya, Shonitasthapana, Kaphaghna, Vrushya, Garbhasthapana, Pramehaghna, Kushthaghna, Jwaraghna, Rasayana.</td>
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<td></td>
<td><strong>Rasa</strong> - Tikta, Katu, Kashaya, Ti...</td>
<td>Anti-inflammatory, Anti-pyretic and Analgesic, Anti-obesity, Antimicrobial - Anthelmintic activity, Estrogenic.</td>
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<td></td>
<td><strong>Guna</strong> - Laghu, Ruksha.</td>
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<tr>
<td></td>
<td><strong>Virya</strong> - Sheeta,</td>
<td></td>
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<td></td>
<td><strong>Vipak</strong> - Katu,</td>
<td></td>
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<tr>
<td>8. Nagar motha</td>
<td>B.N. - Cyperus rotundus Linn.</td>
<td>Tuber</td>
<td></td>
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<tr>
<td></td>
<td>Family - Cyperaceae</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 9. | Vayu vidanga | B.N. - Embelia ribs Burm. F. | Fruit | **Doshaghnata** - Kaphapaitikavikar,  
**Rogaghnata** - Twakavikara,  
Nentaroga, Agnimandya,  
Ajeerna, Sangrahani, Trishna,  
Krimiroga, Raktavikar, Kasa,  
Shwasa, Rajorodha, Sutikaroga,  
Stanyavikara, Pama.  
**Karma** - Shothahara,  
Twagdosahara, Lekhana,  
Stanyashodhana, Stanyajanana,  
Pachana, Grahi,  
Trishnanigrahana, Sangrahaka,  
Garbhashaya Sankochaka,  
Mutrala.\(^{[27]}\) |
| 10 | Chitraka | B.N. - Plumbago zeylanica Linn. | Root | **Doshaghnata** - Kaphavatashamaka.  
**Rogaghnata** - Shiroroga,  
Aparasmar, Agnimandya,  
Ajeerna, Krimidanta, Chhardi,  
Udarshool, Adhma, Vibandha,  
Arsha, Krimiroga, Jeerna  
Pratishyay, Gandamola,  
Mutrakruchchha.  
**Karma** - Krimighna,  
Kushthaghna, Shirowirechana,  
Nadibalya, Deepana, Pachana,  
Anulomana, Garbha Nirodhaka,  
Varnya, Rasayana.\(^{[30]}\) |

**Vayu vidanga**

- **B.N.** - Embelia ribs Burm. F.  
- **Family** - Myrsinaceae

- **Fruit**
  - **Rasa** - Katu, Kashaya.  
  - **Guna** - Laghu, Ruksha, Teekshna.  
  - **Virya** - Ushna,  
  - **Vipak** - Katu,  
  - **Prabhava** - Krimighna.

- **Doshaghnata** - Kaphavatashamaka.  
- **Rogaghnata** - Shiroroga,  
  Aparasmar, Agnimandya,  
  Ajeerna, Krimidanta, Chhardi,  
  Udarshool, Adhma, Vibandha,  
  Arsha, Krimiroga, Jeerna  
  Pratishyay, Gandamola,  
  Mutrakruchchha.  
- **Karma** - Krimighna,  
  Kushthaghna, Shirowirechana,  
  Nadibalya, Deepana, Pachana,  
  Anulomana, Garbha Nirodhaka,  
  Varnya, Rasayana.\(^{[30]}\)

**Chitraka**

- **B.N.** - Plumbago zeylanica Linn.  
- **Family** - Plumbaginaceae

- **Root**
  - **Rasa** - Katu.  
  - **Guna** - Laghu, Ruksha, Teekshna.  
  - **Virya** - Ushna,  
  - **Vipak** - Katu,

- **Anti-fertility,\(^{[31]}\) Anthelmintic, Anti- 
spermatogenic, Embryo  
toxicity and Teratogenicity,  
Anti- implantation  
activity.\(^{[32]}\)  
- **Hypolipidemic and Anti- 
atherosclerotic activity.\(^{[34]}\)
Doshagnata - Vatakaphashamaka, Pittavardhaka.
Rogagnata - Shotha, Shleepada, Shwitra, Amavata, Vatavyadhi, Udarashoola, Arsha, Grahani, Rajorodha, Prasutivikara, Makkalashool.
Karma - Lekhana, Visphotajanana, Deepana, Pachana, Krimighana, Shothahara, Raktrapittakopaka, Kaphaghna, Garbhashaya Sankochaka, Garbhasravaka.[33]

CONCLUSION
Among all Guggulu Kalpa, Dashanga Guggulu is one of the important polyherbal formulation which is useful in Kapha Medaja Vikara. Therapeutically it is indicated for Amavata and Sthaulya. Most ingredients have Katu, Tikta, Kashaya Rasa predominantly. Veerya of some ingredients are Ushna (Guggulu, Maricha, Sunthi, Haritaki, Vibhitaki, Vidanga, Chitraka) where as three ingredient has Sheeta and Anushna Sheeta property. Most of the ingredient possess Katu Vipaka. Over all properties of this Guggulu Kalpa has Tikta, Katu, Kashaya Rasa, Ushna Veerya and Katu Vipaka. Dashanga Guggulu shows Vatakapha Shamaka property predominantly. It also shows Amapachaka and Medohara effect therapeutically. Pharmacological activities of the ingredients of the Dashanga Guggulu has shown its use as hyperlipidemic, hypercholesterolemic, inflammatory and atherosclerotic conditions. It also shows antibesity, antimicrobial, cardioprotective, lypolitic qualities. So this review helps the researcher to explore this formulation for more pharmacological activities of the Dashanga Guggulu.

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