Review on Classical Ahar Dravya For Medoroga (Obesity)

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Abstract:
The incidence of lifestyle diseases like Hypertension, Diabetes mellitus, Dyslipidemia, and overweight/obesity associated with cardiovascular diseases is high on the rise. Worldwide, at least 2.8 million people die each year as a result of being overweight or obese. Obesity is a social, psychological and somatic disorder leading to miserable life and a challenge to the physician in treatment since it exacerbates a large number of health related problems, independently and as an involvement with other diseases. The etiological factors mainly vitiate the Meda-Kapha and this vitiated Meda obstruct the path of Vata, which results into provocation of Vata. In the pathogenesis of obesity two factors are of prime significance, Tikshna Jatharagni (Intense metabolism) and Medodhatvagni-mandya (Reduced fat metabolism). Irrationality between two levels of Agni makes the disease Krichha Sadhya (Difficult to treat). In the context of obesity, it has been recommended by earlier studies that it must be treated on the lines of Guru Apatarpana and the Ahar administered must pacify Vata, Kapha & Meda. Wide range of Ahar dravya having the above mentioned properties have been illustrated in Charaka Samhita viz. Nagar, Yava, Yavaka, Mudga, Kulattha, Adhaki, etc. Hence detailed review on these Ahar dravya in perspective of obesity is done. Owing to the importance of multigrain concept as recognized by Ayurveda thousands of years ago and also endorsed by modern science, need is felt to promote these Ahar dravya’s which are pivotal for complete & balanced physical & psychological development of humans besides considerable immunological support.

Keywords: Obesity, Apatarpana, Medodhatvagni, Ahar, multigrain.

Introduction:
Due to sedentary lifestyle, the prevalence of obesity is increasing these days. Worldwide at least 2.8 million people die each year as a result of being overweight or obese, and an estimated 35.8 million (2.3%) of global DALYs are caused by overweight/obesity. Obesity is the leading cause of variety of health issues viz. High Blood Pressure, Diabetes, Heart Disease, High Cholesterol Levels, Infertility, Back pain, Cancer, Skin infection, Ulcer, Gall stones1. The World Health Organisation2,3 and the National Institutes of Health has defined overweight as having a BMI between 25 & 29.9 kg/m2; and obesity as having a BMI greater than 30 Kg/m2.

Disease Description in the classics:
It is quoted as Sthaulya or Medoroga in classical texts which is one among the eight despicable mentioned by Acharya Charak4 the reason being the 8 defects caused by them- Shortening of life span, hampered movement, difficulty in sexual intercourse, debility, foul smell, over sweating, too much hunger & excessive thirst5. The word Sthaulya is derived from the word ‘Sthula’ which in turn is made from the sankrit word ‘Sthula Paribrumhane’ meaning Vriddhi. Thereby, the word Sthaulya depicts excessive vrdhhi of Shareera6. A person in whom there is excessive accumulation of Meda (fat/adipose tissue) and Mamsa (flesh/muscle tissue) leading to flabbiness of hips, abdomen, and breast has been categorized as Atisthula7.

Medas is body tissue predominant in Prithvi and Ap Mahabhutas similar to Kapha Dosha. It is characterized by Snigdha (unctuous), Guru (heavy), Shhula (space occupying), Picchila (slimy), Mridu (tender/soft) and Sandra (dense) guna (qualities). Sneha (oleation), Sweda (production of sweat), Drudhatva (compactness), and Asthipushiti (nourishment of bones) are the main function of Medodhatu. Consumption of Sheeta (cold), Snigdha (unctuous), Madhuradi and Guru (heavy to digest) Kaphavardhaka (sweet and Kapha increasing) drugs along with lack of exercise and sedentary life style result in excessive nourishment of Medas while other bodily elements (Dhatus) are deprived of nourishment. Disproportionately increased Medas is accountable for several serious consequences reported in Charaka Samhita like Ayurhasa (decrease of life span), Javoporodha (decrease in enthusiasm and activity), Krichravyavayata (difficulty in sexual act), Dourbalya (decrease of strength), Dourgandhya (bad odor), Swedabodha (excess perspiration) and Kshut Pipasadhiyka (excessive hunger and thirst). Mandotsaham (less activity referring to sedentary lifestyle), Atisnigdham (excessive intake of fatty substances), Atishauolyam (gross obesity), and Mahashanam (excessive eating) constitute for causation of Prameha (urinary diseases including Diabetes) and these etiological factors may also initiate Dyslipidemia.

Acharya Susruta says that rasa is responsible for Sthaulya & Karsha of body. When one constantly takes diet increasing Kapha, indulges in eating when the previous meal is undigested, avoids physical exercise & sleeps in the day the ahara rasa being undigested & more sweet circulating in the body, due to excessive unctuousness, produces Meda which causes obesity. It’s channels are obstructed by kapha & Medas; due to which successive dhatus are not nourished leading to low vitality and lastly dies being a victim of one of the severe diseases like carbuncle, fever, fistula-in-ano, abscess & vatika disorders. Ample literature is available regarding effect of Lekhaneeya drugs mentioned for Sthaulya but its other facet, Lekhaneeya Ahar dravya in context of Sthaulya still remains unexplored. But, administration of Lekhaneeya ahar dravya may prove as a good alternative nutritive therapy for Medorog. So, a critical analysis of the classical texts have been done regarding the same.


Some Ahar Dravyas for Sthaulya mentioned in the Classics have been tabulated below.

### Table 1: Ahar Dravyas for Sthaulya mentioned in the Classics

<table>
<thead>
<tr>
<th>S. No</th>
<th>Ahar Dravya</th>
<th>Botanical/English Name</th>
<th>Family</th>
<th>Rasa</th>
<th>Guna</th>
<th>Veerya</th>
<th>Vipaka</th>
<th>Effect on dosha</th>
<th>Referenc es(Classical)</th>
<th>Researehes-References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Madhu</td>
<td>Honey</td>
<td>-</td>
<td>Madhura, Kashaya</td>
<td>Laghu (Susruta), Guru (Caraka), Raksha, Pichila, Yogavahi</td>
<td>Sheeta</td>
<td>Katu</td>
<td>Pitta prasaman, Shleshma prashman, Vata pittagbha</td>
<td>[17,18, 19]</td>
<td>[20,21, 22]</td>
</tr>
<tr>
<td>2</td>
<td>Nagar (Ardraka)</td>
<td>Zingiber officinale Rosc,</td>
<td>Zingiberaceae</td>
<td>Katu</td>
<td>Guru, Raksha, Tikshna</td>
<td>Ushna</td>
<td>Madhura</td>
<td>Kapha-Vata Shamaka</td>
<td>[17,23]</td>
<td>[24,25]</td>
</tr>
<tr>
<td>3</td>
<td>Yava</td>
<td>Hordeum vulgare Linn.</td>
<td>Poaceae</td>
<td>Madhura, Kashaya</td>
<td>Raksh, Ishat Guru</td>
<td>Sheeta</td>
<td>Kapha Shamaka, Vata Vardhaka</td>
<td>[17,18, 26]</td>
<td>[27]</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prashatika (Udika)</td>
<td>Hygropyza aristata Nees</td>
<td>Poaceae</td>
<td>Kashaya Madhura</td>
<td>Raksh</td>
<td>Sheeta</td>
<td>Vata vardhaka, Kapha pitta Shamak</td>
<td>[28,29]</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Priyangu</td>
<td>Setaria italic (Linn.)</td>
<td>Poaceae</td>
<td>-</td>
<td>Guru, Raksh</td>
<td>-</td>
<td>-</td>
<td>Vata vardhaka,</td>
<td>[30,31]</td>
<td>[32]</td>
</tr>
<tr>
<td>No.</td>
<td>Beauv</td>
<td>Scientific Name</td>
<td>Family</td>
<td>Ingredients</td>
<td>Dosage</td>
<td>Action</td>
<td>Effect</td>
<td></td>
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<tr>
<td>6</td>
<td>Shyamaka</td>
<td>Echinocochla frumentacea</td>
<td>Poaceae</td>
<td>Kashaya Madhura</td>
<td>Raksh</td>
<td>Sheeta</td>
<td>-</td>
<td>Vata vardhaka, Kapha pitta Shamak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Yavaka</td>
<td>Inferior varieties of Yava like grains which are smaller &amp; awnless</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>[30, 35]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Joorna</td>
<td>Sorghum vulgare</td>
<td>Poaceae</td>
<td>Kashaya Madhura</td>
<td>Laghu, Raksh</td>
<td>Sheeta</td>
<td>-</td>
<td>Kapha pitta Shamak</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>Kodrava</td>
<td>Paspalum scrobiculatum</td>
<td>Poaceae</td>
<td>Kashaya Madhura</td>
<td>Laghu, Raksh</td>
<td>Sheeta</td>
<td>-</td>
<td>Vata vardhaka, Kapha pitta Shamak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Mudga</td>
<td>Vigna radiata (Linn.) Wilczek</td>
<td>Leguminosae, Papilionatae</td>
<td>Kashaya Madhura</td>
<td>Laghu, Raksh, Vishad</td>
<td>Sheeta</td>
<td>Katu</td>
<td>Kapha-pitta hara</td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>Chakamu dgaka (Makushtha)</td>
<td>Vigna aconitifolia (Jacq.) Marechal</td>
<td>Leguminosae, Papilionatae</td>
<td>Madhura</td>
<td>Raksh</td>
<td>Sheeta</td>
<td>-</td>
<td>Vata vardhaka, Kapha pitta Shamak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Adhakee beeja</td>
<td>Cajanus cajan (Linn.) Millsp.</td>
<td>Leguminosae, Papilionatae</td>
<td>Kashaya Madhura</td>
<td>Laghu, Raksh</td>
<td>Sheeta</td>
<td>Vata vardhaka, Kapha pitta Shamak</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Uddalaka (Kutta)</td>
<td>Paspalum scrobiculatum Var. commersoni i Stapf.</td>
<td>Poaceae</td>
<td>Kashaya Madhura</td>
<td>Laghu, Raksh</td>
<td>Ushna</td>
<td>-</td>
<td>Vata vardhaka, Kapha pitta Shamak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Gavedhuka</td>
<td>Coix lacryma jobi</td>
<td>Poaceae</td>
<td>Kashaya Madhura</td>
<td>Laghu, Raksh</td>
<td>Sheeta</td>
<td>-</td>
<td>Kapha Nashaka</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Chanaka</td>
<td>Cicer arietinum</td>
<td>Leguminosae, Papilionatae</td>
<td>Kashaya Madhura</td>
<td>Laghu, Raksh</td>
<td>Sheeta</td>
<td>Madhura</td>
<td>Vata vardhaka, Kapha pitta rakta shamaka; Ghrisamsy ukta tridosh shamana</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Masoora</td>
<td>Lens culinaris Medic</td>
<td>Leguminosae, Papilionatae</td>
<td>Madhura</td>
<td>Laghu, Raksh</td>
<td>Sheeta</td>
<td>Madhura</td>
<td>Vatala, Kapha pitta shamaka;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 18. | Laja | Dhana ki kheela | - | Madhura | Laghu, Ruksh | Sheeta | Pitta kapha chhida | [54,60] | - |
| 19. | Dagdh Vartaku phala | Solanum melongena Linn. | Solanaceae | Madhura | Laghu | Ushna | - | Kapha Vata shamaka | [61,62] | [63] |
| 20. | Sarshapa taila | Brassica campestris Linn. Var. Sarson prain | Cruciferae | Katu | Laghu, Teeksha | Ushna | Katu | Kapha Vata shamaka; Rakra Pitta kopaka | [64,65, 66] | - |
| 21. | Til Taila | Sesamum indicum Linn. | Pedaliaceae | Madhura, Kashaya anurasa | Guru, Sookshma, Vikasi, Vishada, Vyavayi | Ushna | Madhura | Vata Kapha Nashak; Rakta Pitta karak | [64,67, 68] | - |
| 22. | Ela | Elettaria cardamomum Maton | Zingiberaceae | Katu, Madhura | Laghu, Ruksh | Sheeta | Madhura | Tridoshha ra | [64,69] | - |

Discussion
Defective dietary habits and lifestyle are main cause of obesity. The adoption of Pathya Ahara is the best management of the disease as it is easily available without a prescription, more easily accepted than a professional consultation with a physician or a nutritionist, 100% natural origin and perception that natural products are free from side effects. The diet with Laghu, Ruksh, Kaphamedohara and Srotoshodhana property should be ingested while avoiding Guru, Snigdha, Kaphamedokara and Abhishyandhi foods. Most of the Ahar Dravya prescribed possess Kashaya Madhura Rasa; Laghu Ruksh Guna & Vata kapha Nashaka property, thereby exerting Lekhaneeya effect. This diet plays a crucial role in the alteration of pathophysiology of the persons thereby in the prevention and treatment of the Medoroga (Obesity).

Conclusion
In the emerging scenario where obesity has become the major health issue in India and across the globe, there is a need to emphasize management of obesity and also exploring the feasibility of introducing traditional systems of medicine such as Ayurveda, integrating with conventional medicine to achieve better healthcare. Further integration of Ayurveda and other Traditional system of medicine possibly offer safe and effective management of obesity. Owing to the importance of multigrain concept as recognized by Ayurveda thousands of years ago and also endorsed by modern science, need is felt to promote these Ahar dravya which are pivotal for complete & balanced physical & psychological development of humans besides considerable immunological support. The potential leads form Ayurveda texts may be taken forward for further development of safe and effective and user friendly nutritional forms through systematic clinical studies.

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