GRAHANI- A CAUSE OF MALNUTRITION & ITS MANAGEMENT BY AYURVEDA

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ABSTRACT

Malnutrition is a disturbance of the nutritional status resulting from a deficiency, excess or an imbalance of nutrients. It includes under nutrition and over nutrition. Malnutrition can be occurred by several ways, e.g. deficiency of essential nutrients, improper absorption and assimilation of nutrients. It may lead to group symptoms. Malabsorption syndrome is one of them. Malabsorption syndrome is characterized clinically by bulky, pale, frothy, greasy stool. Associated clinical features include weight loss, multiple nutritional deficiencies, anemia, dermatoses and bleeding tendencies. In Ayurveda it can be correlated with Grahani Roga. In Astang Hridaya this disease is introduced in the list of eight Maharogas. Clinical features of Malabsorption syndrome are also found in Grahani Roga. Agni deepana is the main principle of treatment told by all eminent authors and some other matters relevance has been reviewed. Gangadharadi Vati, Vatsakadi Kashaya and Takrarishta has shown definite significant result on the Grahani Roga.

Keywords: Agnideepan, Grahani Dosha, Grahani Roga, Malabsorption syndrome

INTRODUCTION

What people eat is one of the major environmental influences on health, like immunoreactions & infections variation in nutrition can affect any organ of the body or several at once. Poor nutrition can lead to disease; however, disease may also precipitate malnutrition. Malnutrition can be occurred by several ways, e.g. deficiency of essential nutrients and improper absorption and assimilation of nutrients. It may lead to a group symptoms- Malabsorption syndrome is one of them. In Ayurveda it can be correlated with Grahani Roga. In Astang Hridaya this disease is introduced in the list of Eight Maharogas."
The aims and objectives
1) To study Grahani Dosha and Grahni Roga - cause of malnutrition as described in Ayurveda & its comparison with Malabsorption syndrome
2) To study the best remedy for Grahani Roga

DISCUSSION

There are two meanings of the word Grahni:
(1) Organ and (2) Disease

Grahani as an organ:
- Grahani is the seat of Agni and situated above the Nabhi (Umbilical)
- Sixth Pittadharakala is situated between Amashaya (Stomach) and Pakvashaya (Intestine) receives and retains the food for digestion.
- Grahani is small intestine where main digestive juices are secreted from Liver and Pancreas having properties of the Pachakapitta.

Grahani as Disease:
Grahani Roga is common disease in India & also superimposed over a pre-existing Agni-Dusti. It may also occur as a sequel of other disease like Atisara (Diarrhea).

- “Durbalovidatianne…Grahanigadah”
- “Atisarenivruteapi…Grahanirogamahu”

Grahani is precipitated after Atisara (Diarrhea). A person who has been relieved of Atisara but it still having Mandagni, if he takes injudicious food, it leads to vitiation of Agni and then damages the organ Grahani and expels digested or Mal-digested substances. This condition is termed as Grahani Roga. There may be three processes in the production of Grahani roga viz.

1. Agni Daurbalya (Weakened digestive power)
2. Durbalaba (The holding capacity of Grahani is less)
3. Dusta - Grahani (The organ is damaged)

Samprapti (Etiopathology) of Grahani:
One who is suffering from Atisara or not taking hitahara, causes Agnimandhya (Impaired secretion of bile salt & pancreatic juice) which causes Ama formation (Undigested material). This will either cause Srtorodha (Obstruction) or Suktibhva (organic acid formation) leads to Improper Sar-Kitta Vibhajan (assimilation) and Annvisha (toxic substance) respectively. Improper Sar-Kittavibhajan makes Dhatu Apusti and Dhatukshya (Malnutrition). Annvisha irritates Grahani kala (membrane) leads to Grahani Roga which also cause Dhatu kshaya.

Difference between Grahani Dosa & Grahani Roga

Acharya Charka has mentioned that Vishama, Tikshana and Mandagni may cause the Grahani Dosa but Grahani Roga is the consequence of only Mandagni. Chakrapani commented that in Grahani Dosa, Grahani passes the food in the stage of Ama (Apakva) because of weak Agni and affected by Dosha. It can be known that Grahani dosha is the previous stage of Grahani Roga. Functional disturbances of Grahani in relation with Pachakagni and in the holding of food, it will
lead to *Daurbalya* & *Balakshaya* (Malnutrition).

**Malabsorption syndrome**

In Malabsorption syndrome inadequate absorption of nutrients from the intestinal tract especially the small intestine can be seen. It is characterized clinically by bulky, pale, frothy, greasy stool. Associated clinical features include weight loss, multiple nutritional deficiencies, anemia, dermatoses and bleeding tendencies. Malabsorption syndrome classified into three categories, it may denote the various stage of *Grahani Roga*:

1) Inadequate digestion (*Agnimandhya*): That is needed for the lipid processing. It occurs mainly due to three causes -
- Pancreatic exocrine deficiency
- Intra-luminal bile salt deficiency
- Disaccharides deficiency

Due to above causes, the digestion of food can’t happen properly, which can be considered as ‘*Agnimandhya*’. In Ayurveda as the main symptoms of *Agnimandhya* is improper digestion so it is the first stage of *Grahani Roga*.

2) Inadequate absorption (*Grahani Dosa*): There may be a defective uptake of nutrients due to damage or scarcity of the absorptive epithelium. E.g. mucosal damage, inadequate absorptive surface. In *Ayurveda* it can be correlated with *Grahani Dosa*, as per our classics the main function of *Grahani* or *Pittadharakala* are: *Grahana* (Receiving of food materials), *Pachana* (Digestion), *Shoshana* (Absorption), and *Sarakitta vibhajana* (Assimilation).

So, if there is any disturbance in the function of *Grahani*, proper digestion and absorption can’t take place. Therefore this type of Malabsorption may be considered as *Grahani* disease.

3) Lymphatic obstruction (*Srotorodha*): There may be defective transport of absorbed nutrients from the mucosa of the systemic circulation due to lymphatic diseases e.g. Lymphoma, Whipple’s disease, Lymphangiectasia.

In *Ayurveda*, due to improper digestion *Ama* formation occurs and that causes *Srotorodha*, so *Rasdhatu* can’t circulate in body and it will lead to *Dhatukshaya*.

**Table 1:** Clinical features of Malabsorption syndrome are also found in *Grahani Roga*, *Atisrustamvibddha*……

<table>
<thead>
<tr>
<th>No.</th>
<th><em>Grahani Roga</em></th>
<th>Malabsorption Syndrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Ama</em> or <em>Pakva mala pravritti</em></td>
<td>Stool – observed to be bulky, sticky and tend to float</td>
</tr>
<tr>
<td>2</td>
<td><em>Balakshaya</em>, <em>Alasya</em></td>
<td>Weight loss, Malaise</td>
</tr>
<tr>
<td>3</td>
<td><em>Trushna, Aruchi, Jvara, Daurbalya</em> etc.</td>
<td>Nutritional anemia</td>
</tr>
<tr>
<td>4</td>
<td><em>Sasti</em> - <em>Parvaruka</em></td>
<td>Bone pain related to osteopenic bone disease</td>
</tr>
<tr>
<td>5</td>
<td><em>Shunapada</em></td>
<td>Hypoproteinemia</td>
</tr>
<tr>
<td>6</td>
<td><em>Chirkalanubandhi, Vidahoannasya</em></td>
<td>Hypovitaminosis- chronic Diarrhea, Glossitis/ Stomatitis</td>
</tr>
<tr>
<td>7</td>
<td><em>Parsva-Uru-Griva Vedna</em></td>
<td>Peripheral neuropathy</td>
</tr>
<tr>
<td>8</td>
<td><em>Chronic diarrhea</em> lead to <em>Artavhinta</em> and <em>Strishuaharshanam</em></td>
<td>Amenorrhea &amp; Infertility</td>
</tr>
</tbody>
</table>
So we could say that in *Grahani Roga* there are some similarities in symptoms and it also cause malnutrition if timely not cured.

**Management:**
Injudicious food intake is the important etiological factor as a result *Annavisa* is formed and *Agnidusti* takes place which plays an important role in causing *Grahani Roga*. *Agnidepana* is the main principle of treatment told by all eminent authors.

The classic general guideline is available in the management of the *Grahani Roga*¹¹

- **Snehana** (oleation therapy) – Internal and external planned *Snehana* are essential before purification
- **Swedana** (fomention therapy) – external planned *Swedana* after *Snehana* before purification
- **Shuddhi** (elimination therapy) – *Panchakarma* procedure as per requirement
- **Langhan** (fasting therapy) – Fast or light diet
- **Deepan** (the therapy for the stimulation of the power of digestion) – likely *Laghu*, *Ruksha*, *Ushna Drvyas* e.g. *Chitrak*, *Suniti*, *Marich*, *Pippli*
- **Churna** (powdered drugs) – *Pathyadi*, *Bhunimbadi*, *Nagradi Churna*
- **Lavan** (recipes containing salt) – Increase taste, digestion and elimination of Dosa.
- **Kshara** (recipes containing alkalies) – The most powerful digestive formula e.g. *Kshargutika*
- **Sura, Asava, Arishta** (alcoholic preparation) – specific formula to increase the digestive secretions.

- **Takraprayoga** (varies recipes containing buttermilk) – The most efficient therapy to cure *Grahani Roga*.
- **Deepan sarpies** (medicated Ghee) – To maintain digestive power forever.

**Treatment of different associated conditions:**
- In *Kaphaja* type of *Grahani Yamana Karma* (Emesis) with *Ruksha*, *Deepan* and *Titka Rasapradhana Dravyas* (dry, digestive stimulant and bitter taste drugs should be used). Weak patient with excessive aggravated *Kapha* should be treated by alternatively *Ruksha* and *Snigdha* therapies.
- *Sama* condition should be treated with medicated *Deepniya Ghrita* after proper examination e.g. *Panchkolghrita*
- In *Pittja* type of *Grahani Tikta*, *Deepan* and *Madhur Rasapradhana* drugs (bitter digestive stimulants with sweet ingredients) should be given.
- In *Vataja* type of *Grahani* medicated *Ghee* with *Amla, Lavan Rasapradhana Dravyas* (sour, salty ingredients) should be used.

**Dietary management¹²:**

- **Avacharana** - Compound drug with four types of *Amla Dravyas* (*Vrikshamla, Amlvetas, Dadim and Badar*), 5 types of *Lavan* (*Saindhav, Suvarchal, Bida, audbhida and Samudra*), *Trikatu* (*Sunth, Maricha, Pippli*) and *Sarkara* (sugar) as per mentioned quantity in texts should be added daily in cooked food to enhance metabolism.
- **Yavagu** - 5 types of medicated *Yavagu* (rice recipe with *Ghee*, curd and medicine) should
be added in daily intake to maintain intestinal mucosal membrane and enhance absorption.

**Yusha** – medicated soup with *Ghee* or oil and *Marich* (Black pepper) use to increase gastric secretions.

**Mutton soup** – medicated with *Amla* and *Snigdha Dravya* for proper nourishment.

**Drinks** – *Takra* (buttermilk), *Arnal* (a sour drink), *Madhya* and *Arishta* (a type of alcoholic drink) should be used to clear the channels and increase digestive capacity among of them *Takra* is choice of drink.

The above mentioned recipes with dietary regimen will work as fuel and when appropriately administered they will stimulate the power of digestion.

Some work has been done on **Grahani Roga in Kayachikitsa** Department, I.P.G.T. & R.A.Jamnagar.

1. **Grahani Roga Nidana Evam Chikitsatmaka Adhyaya**\(^1\) – *Gangadharaadi vati* including *Gngadhra Churna*, *Hingvasataka Churna* & *Kutajatwak Churna* in equal proportion was taken and modified into the tablet form as per convenient. Dose and duration was 3 to 10 gm/day 10 days to 2 months duration respectively. 40 patients of *Grahani Roga* were registered. *Gangadharaadi vati* can be claimed dramatically efficacious in controlling symptoms and also increases appetite with Hb%.

2. Study of concept of *Agni* in relation to **Grahani** and its management by **Vatsakadi kashaya**\(^1\)\(^4\). Total 16 patients were treated in two groups.

   - Trial Group- 7 patients treated with *Vatsakadi kashaya*, 30 ml/thrice daily for 5 week
   - Control Group- 9 patients treated with *SvarnaParpati* 100 mg/thrice daily for 5 week

   In *VataGrahni* out of the *Vatsakadi kashaya* group of patients 81.44% relief was observed. In *Pitta Grahani Vatsakadi kashaya* was little more effective 82.3% then the control group 69.44%. In *Kapha Grahani Vatsakadi kashaya* was effective to the 76% and in control group 75%.

3. Studies on the effect of **Takraishta in Grahani Roga** with particular reference to *Agni*\(^1\)\(^5\). Total 18 Patients divided into three groups.

   - Test group- *Takraishta* 30ml thrice/day with equal portion of water for 4 week
   - Control group- ingredients of *Takaraishtha* in powder form was given with *Takra* for 4 week
   - Known Ayu. Control group- *Pancamruta parpati* 500mg thrice/day with water for 4 week

Both the group Test and Control showed marked (83.33%) of appetite to their normal status. *Takrarishtha* has been shown definite significant result on the number of motion/24 hours (p<0.01) being similarly effective on the consistency of the stool (82.33%). Hb% was increased significantly in the patients of *Parpati* group (p<0.05). There was significant rise in S.total protein (p<0.05) in control group. The freshness of buttermilk has more contribution in regards to nutritive property of *Takra* than formation. *Takrarishata* yielded highly significant result in regards B.M.R. (p<0.001).

*Gangadharadi vati* has shown efficacy on controlling the symptoms of *Grahani Roga*, whereas *Vatsakadi kashaya* was better in Pit-
taj type of Grahani Roga and Takrarishta is definitely useful in Grahani Roga patients who have developed Malabsorption syndrome.

CONCLUSION

In Grahani Dosa, Grahani passes the food in the stage of Ama (Apakva) because of weak Agni and affected by Dosha. It can be known that Grahani Dosha is the previous stage of Grahani Roga. Functional disturbances of Grahani in relation with Pachakagni and in the holding of food, it will lead to Daurbalya & Balakshaya (Malnutrition). Ayurvedic management for Malabsorption syndrome is as follows-

a) Inadequate digestion we should use Langhana (fasting), Deepan and Pachana drugs. e. g. Panchkola, Shadushna etc.

b) Inadequate absorption – we should use medicated Ghee e.g. Tiktaghrita

c) Lymphatic obstruction- Takra, Madhya, Arnal, Asava, Arishta, Kshar Kalpna should be used. e. g. Takrarishta, Drakshasava, Madhvasava etc.

d) Gluten and lactose free diets are recommended in Malabsorption syndrome as per modern science likewise rice and butter-milk are preferred according to Ayurveda.

REFERENCES


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