ABSTRACT

Today’s changing trend has given chance to increase prevalence of chronic diseases related to diet and lifestyle. Among them, Peptic Ulcer Disease (PUD) is a gastrointestinal tract (GIT) disorder which is compared to Amlapitta. The causative factors like stressful daily routine, irregular eating habits, eating junk-oily-spicy foods etc., resulting in excessive increase of ‘Pitta Dosha’ causes Amlapitta. Symptoms like heart & chest burn, nausea, indigestion, sour or bitter belching, aversion towards food, gastric is seen in later stage. Among many Rasoushadis Kamadudha rasa is widely used in Amlapitta. The ingredients of Kamadugha Rasa like Bhasmas of the Sudha Vargas which are known for their importance in the management of Amlapitta, Pittaja Vikara, mainly acts as Deepana, Pachana and Vrana Ropana. In The present article an attempt is made to understand the possible mode of action of Kamadugha Rasa as a gastro-protective and for its anti–ulcer activity.

Keywords: Amlapitta, Peptic Ulcer Disease, Kamadudha Rasa action.

INTRODUCTION: Rasashastra includes various drugs of metals and mineral origin along with details of their varieties, characteristics, processing techniques, properties, therapeutic values, precise dose, probable adverse effects, their management and various alchemical procedures in a comprehensive way. Emerging spectrum of Lifestyle diseases (LDs) is a big health challenge. The pattern of leading unhealthy lifestyle with a fast pace, changes in food habits and behavioral patterns leads them towards various psycho-physiological diseases. Digestive abnormalities are one among them. Samhita mentions that in a condition with a disturbed psyche, even wholesome food taken in proper quantity does not get properly digested¹. Acharya Kashyapa and Madhavakara have mentioned psychological problems and bad food habits as the causative factors of Amlapitta. There are many conditions like hyperacidity, gastritis, dyspepsia, anorexia, peptic ulcers under GI diseases. All these can be correlated to Amlapitta². In this article Peptic Ulcer Disease has been taken for the correlation of Amlapitta. There is no involvement of age factor; it can occur at any age infancy, childhood but most common in middle aged adults (Beer and Berkow, 2006). ‘Hurry’, ‘Worry’, and ‘Curry’ are the three main reasons for this disease. As Ayurveda says Samprapti Vighatanameva Chikitsa, Kamadudha Rasa acts exactly in the same way. It acts as an antacid and suppresses the Vidagdha Pitta and on the other hand it acts as Deepana Pachana and treats the Agnimandya condition. Beyond this it acts on the ulcer condition also as Vrana Ropana. Pharmacodynamic actions of Kamadhudha Rasa are more than the actions of antacids like H2 receptor blockers (ranitidine, famotidine), and proton pump inhibitors (omeprazole, pantoprazole). It not only subside the secretion of acids, also corrects the entire
digestive system by improving the digestive fire, digestive enzymes and also heals the ulcers. So the drug of choice is Kamadudha Rasa in Amlapitta (PUD).

**Amlapitta (PUD):** According to Ayurvedic Classical Texts, the Vidagdha Ahara becomes Amla and remains still in the stomach which provokes the Pitta dosha. Provocated Pitta causes reduction in the digestive power and also causes fermentation of the food. This fermented food in turn causes provocation of Pitta and vitiation of stomach, ultimately causing “Amlapitta”. Acharya Charaka said that the Aama or undigested food molecules which are generated from Ajirna are absorbed and deposited in different organs of the body and thus produces the metabolic disease like Amlapitta.

**Amlapitta Samprapti according to Kashyapa Samhita**

Samanya Samprapti of Amlapitta

Pittaprakopaka Nidana

\[\text{Nidana} \rightarrow \text{Amlaguna Vridhi in Pitta} \rightarrow \text{Vidagdha Pitta} \rightarrow \text{Vidagdha Anna} \rightarrow \text{Agnimandy} \rightarrow \text{Shukta Paka (Sourness)} \rightarrow \text{Amlapitta}\]

Ayurveda continues to contribute effectively to human health capable to respond to the expressed health needs of the community and emerging times when the prevalence of lifestyle diseases is increasingly on the rise. Ayurveda offers more personalized care and customized treatment options. Demand of herbal-mineral drugs is increasing in day to day life due to their excellent efficacy, fewer side effects and faster action. Rasoushadhis are the unique dosage forms having benefit of long shelf life and better therapeutic efficacy at lower dose. In present era Rasoushadhis have given society a complete holistic health care. So the drug of choice is Kamadudha Rasa in Amlapitta (PUD) condition.

**Kamadudha Rasa Ingredients and Indications according to classics:**

Kamadudha Rasa contains Bhasmas of Shudha Varga Dravyas like Mukta (Calcined pearl), Shukti (Calcined oyster shell), Shankha (Calcined conch shell), Pravala (Calcined coral) and Varatika (Cowries shell) along with Shuddha Gairika (Purified red ochre) and Guduchi Satva (Cold water extract of Tinospora cordifolia). It is not only indicated for Amlapitta but also in Pittaja Vikaras, Jeerna Jwara, Unmada (Psychosis), Apasmara (Epilepsy), Pradara (Leucorrhorea), Mutra Daha (Burning micturation), Raktarsha (Bleeding piles), Vrana (Ulcers produced due to Amlapitta), Bhrama (Vertigo), Daha (Burning sensation), Murcha (Loss of consciousness), Rakta Pitta (Epistaxis) and Trishna (Thirst). These all indications depend on the variation of the Kamadudha

62 www.ijaar.in IJAAR VOLUME III ISSUE 1 MAR-APR 2017
Rasa mentioned in different classical texts and are dealt in detail here.

Table 1: Kamadudha Rasa Preparation & Indication in classical Ayurvedic texts

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ingredients</strong></td>
<td>Swarna Gairika, Ghrita, Amalaki Swarasa (juice of Emblica officinalis)</td>
<td>Guduchi Sattva, Swarna Gairika, Abhrika Bhasma Karsha</td>
<td>Mukta Bhasma, Pravala Bhasma, Shukti Bhasma, Kapardika Bhasma, Shankha Bhasma, Shuddha Gairika, Guduchi Sattva all in equal quantity</td>
<td>Swarna Gairika, Guduchi Sattva, Sharkara, Amalaki Swarasa</td>
</tr>
<tr>
<td><strong>Preparation</strong></td>
<td>Bharjana (frying) of Swarna Gairika is done with Ghrita, powdered and seven Bhavana (trituration) given with Amalaki Swarasa.</td>
<td>All the ingredients are finely powdered and mixed well.</td>
<td>All the ingredients are taken in equal quantity and triturated homogeneously.</td>
<td>Shodhita Shodhita Swarna Gairika triturated with Amalaki Swarasa continuously for 21 days, dried and powdered. Mix Guduchi Sattva equal to it and also mix Sugar equal to both and grind well.</td>
</tr>
<tr>
<td><strong>Indication</strong></td>
<td>Pitta Roga, Prameha (diabetes), Pradara, Pandu Roga (anemia), Kamala (jaundice), Daha, Trishna, Bhrama, Jirna Jwara</td>
<td>Prameha, Pradara</td>
<td>Jirna Jwara, Bhrama, Unmada, Pitta Roga, Amlapitta and Somaroga.</td>
<td>Rakta Pitta, Trishna, Daha, Bhrama, Murcha</td>
</tr>
</tbody>
</table>

Chemical Composition:

Kamadudha Rasa is likely to contain:
1. Calcium Carbonate
2. Conchiolin
3. Starch
4. Iron oxide

The Pharmacodynamics’ action of Kamadudha Rasa particularly in treating Amlapitta (PUD) is explained further so as to serve as an important tool for treating...
Peptic ulcers and serving for the betterment of digestive system.

**Mode of action of Kamadudha Rasa:**

In the present review an attempt is made to understand the Mode of action of Kamadudha Rasa as Gastro-Protective and Anti-Ulcerative. Kamadudha Rasa’s ingredients & its individual properties & actions

- **Pravala and Mukta** which have Dipana (appetizer) and Pachana (digestive) properties (Kulkarni, 2006) & also maintains the normalcy of Agni (digestive fire) and thus help in curing and preventing the production of ulcers (Ghosh and Baghel, 2011). The Kshariya (alkaline) nature of these drugs would reduce the Amliyata (acidic nature) and help in Vrana Ropana (promotes wound healing). Due to their Sita Virya property (the drug having cold potency or cooling effect usually resembles to endothermic) Pitta Shamana (pacify the biological fire) is done.

- **Shankha Bhasma** is also having Sita Virya, alkaline property & it is Grahi (absorption enhancing), it is indicated in gastrointestinal disorders like Amlapitta, Parinama Shula, Grahani (Irritable bowel syndrome) and Agnimandhya (Shastri, 1989) which is clinically proved (Pandey, 2000).

- **Gairika** is having Madhura (Sweet), Kashaya (Astringent), Snigdha (smooth), Hima (cold) properties which act as Rukta Pittahara (effective in bleeding diathesis) and Vrana Ropaka. These properties are very necessary in the healing of ulcer.

- **Guduchi Satva** is known for its Rasayana property (Upadhyay et al., 2010). It is having Tikta (Bitter), Kashaya Rasa with Madhura Vipaka (post digestive effect which is sweet in nature), Snigdha Guna and is Tridosha Shamaka (pacify three Bio energy Principles, Vata, Pitta, and Kapha), Dipaniya. These all would support in the antiulcer activity along with Rejuvenation.

**DISCUSSION:** Pitta is having Tiksna (sharpness), Usna (heat), Sara (mobility), Laghu (lightness), Snigdha properties by which it brings biochemical changes at the cellular and tissue levels. Pitta maintains digestion, thirst, appetite, energy production, body temperature, color, and complexion. Pitta is Drava (liquid) in consistency, inspite of which, it performs actions similar to Agni, in the course of process of digestion, largely due to its actual Teja (heat) component (discarding its liquidity-Drava). This fact is inferred from the way in which Pachaka Pitta (digestive component of biological fire) performs Pachana (digestive) Karma (action). The capacity of digestion also depends on the qualitative increase of Usna Guna of Pitta. Conceptually it can be concluded that substances having the properties like Ruksha, Kashaya, Laghu has effect to decrease the Drava Guna of Pitta and maintaining the proper function of Agni. Similarly substances having Madhura, Sheeta properties, decreased the Usna property of Pitta to maintain the proper function of Agni.

**Modern perspectives of Mode of Action:** Due to oxalates and phytates present in cereals and green leafy vegetables the calcium in them are not utilized by the body properly. In Bhasmas the calcium is in the form of oxide and it is easily absorbable. Calcium components due to their alkaline properties they suppress the acidic reactions in the gut, act as Antacids.
The absorbability of calcium compound Bhasmas which are in oxide form may be explained as below,

**Figure 1: Probable absorbability of calcium compound Bhasmas**

\[
\begin{align*}
\text{CaCO}_3(s) & \rightarrow \text{CaO}(s) + \text{CO}_2(g) \\
\text{Anupana} & \quad \text{(water/honey)} \\
\text{CaO} + \text{H}_2\text{O} & \rightarrow \text{Ca(OH)}_2 \\
\text{Gastric juice} & \\
\text{Ca(OH)}_2 + 2\text{HCl} & \rightarrow \text{CaCl} + 2\text{H}_2\text{O} \\
\text{(CaCl is absorbable form)} &
\end{align*}
\]

**Figure 2: Probable mode of action in Amlapitta**

CaCl \rightarrow Ca^{2+} + Cl^{-}

The probable mode of action in Amlapitta as antacid by all Sudha Varga Drayyas is: Ca^{2+} is most absorbable form in body and Cl^{-} nullifies the acidity along with properties of these drugs like Sheeta Veerya and has Pittahara action so its action in Amlapitta is effective. Low pH condition i.e., acidic state is more favorable for absorption of calcium. Kamadudha Rasa also contains many elements like iron, oxygen, sodium, zinc, aluminium, silicon potassium and others which are essential minerals for the maintenance of healthy body. The presence of zinc, aluminium and magnesium also helps in the ulcer healing process.

**CONCLUSION:** Amlapitta (PUD) is a Pitta predominant disease and by the above concept it is proved that Pitta is treated by the Sheeta Virya, Madhura Rasa, Kshariya properties. And also Kamadudha Rasa contains other elements which help in Vrana Ropana action & also this formulation helps in increasing immunity. So, overall effect of Kamadudha Rasa can be said that it’s not only cures PUD but also helps in improving the total health condition.

**REFERENCES:**

1. Acharya Sushruta; Dalhana Sushruta Samhita, Sutrasthana 46/501; edited by Vaidya Yadavji Trikamji Acharya; Chaukhambha Orientalia; 1997; p. 255
10. Dasari srilakshmi et al; therapeutic potentials of sudha varga dravyas vis-à-vis calcium compounds: a review; irjp 2012, 310
11. Varas et al., 1991; frommer 1975; watanabe t, et al., 1995; itoh et al., 2004; mcintosh and sutherland, 1940.

Corresponding Author: Dr. Abhishek Biswas,PG Scholar, Department of RSBK, SAMCH, Indore, M.P.
Email – deshu_bis@hotmail.com

Source of support: Nil
Conflict of interest: None
Declared

Cite this Article as: Biswas abhishek et al : Mode of action of Kamadudha rasa in Amlapitta: www.ijaar.in
IJAAR VOLUME III ISSUE 1 MAR-APR 2017