CLINICAL EFFECT OF SHATAVARI YOGA IN MANAGEMENT OF HYPERACIDITY

Bharti¹, Praveen Bansal² and T. Bikshapathi³

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Introduction

Hyperacidity is a collective term for symptoms originating from upper gastrointestinal tract, the causes being peptic ulcer disease, acute gastritis, gallstones, motility disorders, non-ulcerative dyspepsia and irritable bowel syndromes. In fact it is a condition with high acid values of gastric juice. The gastric juice is a mixture of HCl, pepsin, rennin, neutral chlorides, mucous, intrinsic factor and traces of potassium, ammonium and calcium. During the interdigestive period acid is secreted at the rate of 24 m eq/hr in normal individuals (Satoskar et al., 1983).

This is one of the most coming up lifestyle disorders worldwide. Stress, smoking, tobacco chewing & irregular food habits with hot spicy food are the common

Amlapitta or hyperacidity is the most common disorder of the present society. The word amlapitta indicates amlatwam of pitta because the pitta instead of attaining its natural katupaka attains amlapaka. It may be due to erratic dietary habits or may be due to other dietary habits like hot spicy and junk food, which has become a symbol of modernization. If untreated it may give rise to chronic gastritis or peptic ulcer. Patients of amlapitta were randomly selected from OPD/IPD of CRIA, Delhi (year 1982 to 1989). Twenty-nine patients were treated with Shatavari Churna, Yashtimadhu, Rasanjana & Sukshma Ela. From the results it was observed that 17.3% patients showed good response, 73.9% showed fair response and 8.7% showed no response. Out of 29 patients 6 patients were drop out/LAMA.

1. Assistant Director (Ay), 2. Assistant Director (Biochem.) and 3. Director, Central Research Institute (Ay.), Punjabi Bagh, New Delhi.
predisposing factors for *Amlapitta* or hyperacidity. In addition to it Ayurvedic texts have mentioned that irregular dietary habits like *Adhyashanam, Anashanam, Adhikdravasewana, Ama, Ajeerna ahara* and the irritating food habits like *Ushna ruksha, Amla ahara* and *dustahara* are causative factors of the disease. In the commercial world a number of modern medicines acting locally are available. At the same time other drugs like H2 receptor antagonists are available that block the proton pump and inhibit the secretion of hydrogen and chloride ions. These allopathic preparations have their own drawbacks and side effects. Ayurvedic preparations are supposed to reduce stress, reduce spasm, improve gastric-emptying and improve immunity there by increasing mucosal health. An extensive study has already been conducted by Tripathi & Mishra, 1962 on gastritis syndrome at BHU. The medicines used were very bitter, so the palatability and acceptability of medicine was poor. Effects of *Amalaki* on hyperacidity/_Amlapitta_ were studied by Singh & Sharma 1971 (BHU) Dubey et al., 1981 at AIIMS (As mentioned by Sharma et al, 2000). A number of churnas like *avipattikar churna* or *amalkyadi churna* are easily available in the market. The only drawbacks with these compound drugs are that they do not possess sufficient *amlapittahara* properties. Keeping this view in mind an attempt was made to search an ideal drug having the properties of *pittahara* combinations. Still much was not done thus it was decided to workout this problem to evaluate the efficacy of herbal preparation *shatavari yoga* in the management of *Amlapitta*.

**Materials and Methods**

Patients of *Amlapitta* *vis a vis* non-ulcer dyspepsia with complaints of *Udar daha, Kantha daha, Amlodgara, Amchi, Adhman, Avipaka, Udarshoola, Vibandha & Hrillas* were randomly selected from OPD of CRIA, Delhi. Investigations were done to exclude pancreatitis, hepatitis, carcinoma, renal failure & Hypercalcaemia. Fraction test meal was conducted to evaluate the effect of preparation on acid levels of patients at different set intervals.

**Medicine and dose schedule**

*Shatavari Yoga*

*Shatavari* (*Asparagus racemosus* Wild.) - 5 g.  
*Yashtimadhu* (*Glycyrrhiza glabra* Linn.) --2 g.  
*Rasanjana* (Extract of *Berberis aristata*) -250 mg.  
*Sukshma ela* (*Elettaria cardamomum*) - 250 mg.

Twice a day boiled in milk before meals.

**Inclusion Criteria**

Patients having following symptoms were included in the trial.

1. *Amlodgar* (sour eructations)  
2. *Udar-daha/Kantha daha* (Burning sensation in throat)  
3. *Vibandh* (constipaton)  
4. *Aruchi* (Loss of apetite)  
5. *Hrillas* (Epigastric burning)
6. Udarshoola (pain in abdomen)
7. Agnimandya (Dyspepsia)
8. Klama (Lethargy)
9. Ajeernam (Indigetion)
10. Utklesha (Nausea)
11. Gouravam (Heaviness)

Exclusion Criteria
1. Hematemesis and or malena
2. Hepatitis
3. Pancreatitis
4. CA-Metastasis liver
5. Colonic carcinoma
6. Renal failure
7. Hypercalcemia
8. Patient taking NSAIDs / steroids / Iron / Digoxin

Duration of treatment: 14 days in each group.

Level of study: OPD / IPD

Design of study Results: Open clinical trial.

The assessment of results was made on the basis of certain symptoms as well as on the results of fraction test meal conducted before and after the treatment. The results show that there was a significant decrease in the free acid level and total acid level at peak stages of secretion in the patients before and after the treatment. At the earlier stages before treatment there was presence of blood as well as significant amount of bile in the gastric juice whereas the level of both of them had gone significantly down after treatment. Thus in this study patients treated with the combination of Shatavari churna, Yastimadhu, Rasanjana, & Sukshma Ela, 17.3% patients showed good response (75-100% relief), 73.9% patients showed fair response (50-75% relief) and approx. 8.7% patients showed no response (less than 50% relief). Out of 29 patients 6 were dropped due to different reasons.

General Observations
1. Incidence of Amlapitta was reported more in males, as compared to females.
2. The patients in younger age group i.e. 16 years to 40 years were more susceptible to the disease.
3. Symptomatic improvement was noticed in almost all the patients (excluding poor response, no response, LAMA).
4. In very few cases there was no change in FTM despite of symptomatic improvement.
5. Rasanjana created very bitter taste in mouth, and to change that some patients required sugar solution, candy etc.

Side Effects
It has been observed that if the quantity of Rasanjana is increased or
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Suksham Ela is not added in shatavari yoga medicine, it caused feeling of nausea as indicated by some of the patients. Rasanjana needs boiling in milk to be safe for its toxic effect i.e. nausea. Moreover the combination becomes so bitter that sugar has to be added to the medicine. It was observed that the patients who managed to take, sugar in large quantity along with outside food and did not like the hospital diet, the complaints did not subside. As soon as it was checked, the patients responded well.

Discussion and Conclusion

‘Amlapitta’ is described in Madhava Nidana and Kashyapa Samhita. Some people correlate it with non-ulcer dyspepsia while others opinion that it is simply hyperacidity gastroduodenal reflux. However, the presenting symptoms are Apaka (indigestion), Amlodgara (Acid eructation), Hrit Kantha Daha (heart burn), Aruchi (anorexia) & Utklesha (nausea), Shankh Bhasma, Patola Kwatha, Narikela lavana, Amalaki churna, Shatavari rasayana & Madhuyashthi churna are some of the successfully & commonly used medicines. Hydrogen ions, accompanied by chloride ions are secreted in response to activity of hydrogen potassium ATPase (Proton Pump) from the apical membrane of parietal cells. Thus most of the medicines are proton pump blockers or H2 receptor antagonists (John Mcleod, 2002). However, side effects are noticed with the

<p>| Year Wise Detail Of Response of The Amlapitta patients treated by shatavariyoga |
|------------------|------------|--------|--------|--------|--------|--------|</p>
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Year</th>
<th>Drug</th>
<th>Total</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>No</th>
<th>Lama</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>82-83</td>
<td>Shatavari, yastimadhu, Rasanjana &amp; Sukshma Ela</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>83-84</td>
<td>-do-</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>84-85</td>
<td>-do-</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4.</td>
<td>85-86</td>
<td>-do-</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5.</td>
<td>86-87</td>
<td>-do-</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

| Total | 29 | 4 | 17 | 2 | 0 | 6 |

20
B & T lymphocytes, macrophages & most cells are found throughout GIT mucosa. However, the role of immunology is not clear but it is hypothetical that Ayurvedic medicines may be strengthening goblet cells & altering proton-pump, somehow it requires further research. In fact the results of this study seem to be the outcome of the effects of the components of the drug. The volatile oils of cardamom are carminative in nature and diuretic. It also relieves burning sensation and nausea. Eladi churna has been recommended as a potent agent in hyperacidity (Sudhakar et al, 2001). As per Ayurvedic texts shatavari is madhura, guru and sheet and hence it is pitta shamak, dahashamka and shula shamak in action. yashtimadhu is madhur, pitta shamak, shotha samak and especially paittika shula shamaka. Shatavari and Yashtimadhu both reduce the inflammation of internal lining of stomach. ashtimadhu is known to have anti-ulcer activity when given along with Shatavari (Dave, 1997). Yashtimadhu has also been documented as a potential anti-ulcer drug (Solanki et al., 2000).

According to recent reports extracts of Yashtimadhu in topical preparations protect the skin against damage caused by free radicals and reactive oxygen species (Mambro and Fonseca, 2005). Stress has been taken as one of the most important causative factors of hyperacidity. Stress is also known to generate free radicals in different parts of the body. So it is quiet likely that the anti free radical property of Yashtimadhu is protecting the damage caused by free radicals in stomach and gastric mucosa acting as potent agent against hyperacidity. Amlapitta occurs due to pittadushti and agnimandya. Shatavari has sheet veerya, madhura vipaka and pitta shamak properties along with agnivardhak properties. Shatavari has been recommended as a potential drug in management of amlapitta (Galani et al, 2005). Shatavari contains Shatavarin I and II as active components and has been recommended as beneficial in dyspepsia and hyperacidity (Yoganarsimhan,2000). Thus the combination may exert a synergistic action and give better results. From the above results it seems that Shatavari yoga has proved to be a potent agent for preventing hyperacidity and can be recommended for use with above mentioned side effects.

Acknowledgement

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<table>
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<tr>
<th>Author(s)</th>
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<th>Title and Details</th>
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<td>Galani, K. et al.</td>
<td>2005</td>
<td>A pharmacoclinical study of <em>shatavari</em> in the management of <em>amlapitta</em>, in proceedings of National seminar on <em>Bhesaja</em> 2005 at Govt Ayurvedic Medical College, Bangalore.</td>
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सारांश

‘अम्लपित में शतावरी योग का चिकित्सकीय प्रभाव’

भारती, प्रवीण बंसल, और टी. भिक्षापति

अम्लपित आज के समाज में सबसे सामान्य व्याधि है। अम्लपित का शाब्दिक अर्थ है पिता का अम्लव पियोंकि पिता अपने सामान्य कठुआक को न पाकर अम्लपाक को प्राप्त कर लेता है। ऐसा मिथ्या आहार अथवा अन्य भोजन संबंधी कारणों जैसे उष्ण, मसालेदार और जंक्फूड आदि से होता है, जो कि आज की सम्प्रति के चिन्ह बन चुके हैं। यदि अम्लपित की चिकित्सा न की जाए तो यह आमाशय रोग या आमाशय ब्रण उत्पन्न कर सकता है।

केंद्रीय आयुर्वेद अनुसंधान संस्थान, दिल्ली में अन्तरंग एवं बहिरंग विभाग से रोगियों का चयन किया गया (वर्ष 1982 से 1989)। 29 रोगियों की शतावरी चूर्ण, यशीमधु, रसांजन और सूक्ष्मपल्टा द्वारा चिकित्सा की गई। परिणामों का अध्ययन करने पर ज्ञात हुआ कि 17.3% रोगियों में उत्तम लाभ, 73.9% रोगियों में सामान्य लाभ और 8.7% रोगियों में कोई लाभ नहीं रहा। 29 रोगियों में से 6 रोगियों ने चिकित्सा क्रम पूरा नहीं किया।