

AN OBSERVATIONAL CASE CONTROL STUDY OF FERMANTED FOOD AS THE ETIOLOGICAL FACTOR OF AMLAPITTA

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INTRODUCTION

Disease and sufferings have become fundamental attributes of human being since time immemorial. Due to urbanization and change of life style people are inviting many health problems, Amlapitta being one among them with prevalence as high as 20% in Indian Population. It is a very common disease affecting almost all the human beings in more or less severity. Increased pace of life, stress as well as changes in foods {eating of stale fermented food like Dosa, Uttapa, Idli, Bakery foods, excessive intake of oily foods and fast foods} and food habits have contributed to the increased incidence of Amlapitta.

Definition of Amlapitta

विदग्धं शुक्ततां याति शुक्तमामाशये स्थितम् ।

तदम्लपित्तमित्याहभुयिष्टं पित्तदुषणात् ॥ (का. खि. १६/९)

According to Acharya Kashyapa, the Vidagdha ahara (diet) becomes Amla (Sour) and remains still in the stomach which provoke 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”, and Symptoms like Amlodgara (Sour belching), Urovidaha (Burning sensation in chest), Aruchi (Loss of appetite), Utklasha (Nausea) etc. are evident clinically.

Fermented products are prepared by controlled fermentation and produce acidity. There are different fermented product in India such as Idli, Dosa, Dhokla, Misti Dahi, kadhi etc.

The ratio of people consuming this fermented food is increased in today's life style and this is one of the causative factor of Amlapitta. Therefore observing these things, taking into consideration there is need to study on fermented food which is the significant causative factor of Amlapitta. As Prevention is better than cure and is better to avoid the causative factors of Amlapitta. According to Acharya Sushruta, withdrawing of the causative factors of diseases is known as “Nidana parivarjana” and this is the first line of treatment of diseases.

MATERIALS AND METHODS

1. Study Design:- Observational case control study.

The present study is primarily divided into three sections-

Section 1- Study of Concept- A systematic review of literature which entails a thorough compilation and analysis of the concepts of Nidana from Ayurveda.

Section 2- Study of Etiology- The study designed in two groups,

Group A- patients reporting with complaints of Amlapitta to the College OPD, of our Institute. After selecting the patients subsequently to informed consent, the assessment of etiological factors according to prepared performa will be undertaken.

Group B- Healthy individuals with no complaints of Amlpitta or no any disorder, after selecting subsequently to informed consent, the assessment of etiological factors according to prepared Performa will be undertaken.

Section 3- Assessment- Patients screened in section- 2 study will be assessed on Amlapitta

2. Sample Size-140

- Group A- 70 Patients of Amlapitta Vyadhi
- Group B- 70 Healthy Individuals

About 70 patients having Amlapitta and 70 healthy individuals willing to provide written informed consent will be selected from the institutional hospitals and will be subjected to study of etiology on the basis of specially prepared performa including Ayurvedic parameters.

3. Sampling Technique-Cluster

The subjects from the study of etiology coming under the inclusion criteria of Amlapitta and consenting to participate for assessment will be selected.

Statistical Test- 1) Z Test

2) Chi-square Test

3) Appropriate statistical test will be applied

4. Selection Criteria

Observational Study will be carried out on 70 Patients of Amlapitta, selected from OPD of our Institute & 70 healthy individuals by considering inclusion and exclusion criteria as mentioned below.

A] Inclusion Criteria

- 1] Age Group: Patients of either sex age group in between 18-60 years
- 2] Patients diagnosed as Amlapitta according to Ayurvedic classical features Avipaka (Indigestion), Klama (Lassitude), Utklesha (Nausea), Tiktaamlaudgara (Sour- bitter belching), Gourava (Heaviness in body), Hritkandadaha (Burning sensation in heart), Aruchi (Loss of appetite) etc, for group A-will be selected irrespective of sex religion and Occupation.
- 3] Healthy individuals with no complaints of Amlapitta or no any disorder for group B
- 4] Persons having an affinity towards fermented food.

B] Exclusion Criteria

- 1] Chronic peptic Ulcer, Duodenal Ulcer, Gastric Ulcer
- 2] Patients suffering from other diseases like, AIDS, tuberculosis, Carcinoma, Cardiac problem
- 3] Patients addicted with Alcohol and Tobacco, etc
- 4] Pregnant women & lactating mother.

5. Criteria For Assessment

Subjective Parameter

1. Avipaka (Indigestion)
2. Aruchi (Loss of appetite)
3. Klama (Lassitude)

4. Amlodgara (Sour belching)
5. Utklesha (Nausea)
6. Hrd-kanth-daha (Burning sensation in heart- throat)
7. Tiktodagara (Bitter-belching)
8. Dravmal pravrutti etc.

OBSERVATIONS

- 70 patients of *Amlapitta* were Out of which maximum no. of patients belonged to the age group of 18 – 30 yrs (57.14%), Male (60%), Hindu (80%), Married (50%), Middle class (60%), Educated up to Graduate (50%) & Student(30%) same as Private job worker.
- 94.28% of the patients had no addiction & 5.72% were addicted to Tea. *Ahara Pariksha* showed 90% vegetarians and 70% had *Madhyama Abhyavaharana Shakti* & 70% had *Avara Jarana Shakti*. 50% had *Mandagni* & 60% had *Madhyam kostha*.
- 60% patients were of *Pitta-kapha prakruti* and 70% *Raja - Tama prakrati*. 70% *Madhyama Sara*, 60% *Madhyama Samhanana*, 60% *Madhyama Satva* & 60% *Madhyama Satmya*. 100% patients were from *Sadharana Desha*.
- *Rasavaha*, and *Annavaha srotodusti* in 100%
- Group A (*Amlapitta vyadhi* Patients) -100% patients consumed *Pishtanna* & *vidagdha Aahara*(fermented foods.) 80% *Guru Aahara*, 40% *Paryushitanna* & *Apakvanna* & *Ajirna bhojana*, 20% *Snigdha ahara*, *Ati Ruksha ahara*, 30% patients consumed *Abhishyandi*, while 10% consumed *Atiushna ahara*. In short mostly all of the *Nidana* were consumed by one or the other patient which led to *Mandgani* and '*Pitta*' *dosha prakoa* were responsible for improper digestion, vitiation of *doshas*, causing *Ama* and thus aggravating the disease process.
- Group A ((*Amlapitta vyadhi* Patients) *Cardinal symptoms* like *Aruchi* (90%), *Hrid daha*(70%), and *Kantha daha*(40%) were due to *Amla*, *Katu rasa pradhana ahara* and improper digestion; *Amlodgara*(100%) and *Udara daha* (10%) were also due to *Amla-Katu rasa pradhana ahara*; *Avipaka* (100%) was due to *dusti* of *Annavaha srotasa* and *Rasa dhatu dusti*; *Shirah shoola* (60%) were due to improper digestion; *Utklesha* (90%) may be due to *Ama*.
- Consumption of fermented food- Group A (*Amlapitta vyadhi* Patients): maximum i.e 90% Patients were consumed *Idli/Dosa/uttapa*, 70% were *Bred* and *Pav/Biscuits*, 40% were *Dhokla*, 30% were *Jilebi* & same as *Curd*.

Group B(Healthy individuals): maximum i.e 40% Healthy Individuals, were consumed Idli/Dosa/uttapa, 40% were Bred and Pav/Biscuits, 10% were Dhokla & 10% were Jilebi, 20% were curd.

- According to frequency Consumption of fermented food:

Group A (Amlapitta vyadhi Patients): maximum i.e 50% Patients were consumed Fermented food in maximum in quantity & Daily(1 to 2 times) frequency, 30% were maximum in quantity & Weekly (4 to 5 times) frequency, 20% were maximum in quantity & Monthly (4 to 5 times).

Group B (Healthy individuals): maximum i.e 50% were consumed Fermented food in Minimum in quantity & Monthly(1 to 2 times) frequency, 20% were minimum in quantity & Weekly (1 times) frequency, 30% were Never consumed.

RESULTS

- ❖ In group A (Amlapitta vyadhi Patients) maximum patients were consumed fermented food especially idli/dosa/uttapa in maximum quantity and Higher in frequency that's why the incidence of disease Amlpitta is higher.
- ❖ In group B (Healthy individuals) peoples are consumed fermented food but in minimum quantity and lower frequency so no incidence of disease.
- ❖ Overall study showed that in group A (Amlapitta vyadhi Patients) patients are consumed fermented food especially idli/dosa/uttapa was excessive in quantity and higher in frequency so this is the one of causative factor in manifestation of Amlapitta & in group B (Healthy individuals), consumed fermented food in minimum quantity and minimum frequency so no incidence of disease.

DISCUSSION

AHARA SHAKTI

Group A (Amlapitta vyadhi Patients): 70% patients had Madhyama abhyavaharana shakti and 70% patients had Avara Jarana Shakti. Mandagni and Ajirna affects the Abhyavaharana and jarana Shakti, so maximum patients suffers from this disease. Group B (Healthy individuals): 80% had Madhyama abhyavaharana shakti and 70% patients had Madhyama Jarana Shakti. But in this group Abhyavahrana and Jaran Shakti is good and also the ratio of people consumed fermented food is in less quantity and less frequency So in this group no incidence of disease.

VITIATED SROTASA

Group A (Amlapitta vyadhi Patients): Rasavaha and Annavaha Srotodusti were found in the 100% patients. 100% dusti of Annavaha srotasa was found, as Amlapitta is an Annavaha srotogata vyadhi. Rasavaha srotodusti was also found, as Rasa dhatu gets vitiated by Agni mandhya. Group B (Healthy individuals): Rasavaha and Annavaha Srotodusti were found in the only 10% Healthy individuals with less severity and also the ratio of people consumed fermented food is in less quantity and less frequency So in this group no incidence of disease.

NIDANA

Group A (Amlapitta vyadhi Patients): 100% patients consumed Pishtanna & vidagdha Aahara(fermented foods.) 80% Guru Aahara, 40% Paryushitanna & Apakvanna & Ajirna bhojana, 20% Snigdha ahara, Ati Ruksha ahara, 30% patients consumed Abhishyandi, while 10% consumed Atiushna ahara. In short mostly all of the Nidana were consumed by one or the other patient which led to Mandgani and 'Pitta' dosha prakopa were responsible for improper digestion, vitiation of doshas, causing Ama and thus aggravating the disease process. Group B (Healthy individuals): 70% Healthy individuals had nidana of Pishtanna sevana & same as vidagdha Aahar (fermented foods) but less in quantity and few times. 30% Guru ahara sevana and same were Paryushita Anna sevana, 10% were Abhishyandi Bhojana, 10% were Ajirna Bhojana.

- According to Consumption of Fermented food. Group A (Amlapitta vyadhi Patients): maximum i.e 90% Patients were consumed Idli/Dosa/uttapa, 70% were Bred and Pav/Biscuits, 40% were Dhokla, 30% were Jilebi & same as Curd. The Ratio of consumed fermented food in every category was maximum specially in Idli/dosa/uttapa so incidence of disease. Group B (Healthy individuals): maximum i.e 40% Healthy Individuals, were consumed Idli/Dosa/uttapa, 40% were Bred and Pav/Biscuits, 10% were Dhokla & 10% were Jilebi, 20% were curd. The Ratio of fermented food in every category was minimum so no incidence of diseases.
- According to Frequency of Fermented food Consumption: Group A (Amlapitta vyadhi Patients): maximum i.e 50% Patients were consumed Fermented food in maximum in quantity & Weekly (5 to 6 times) frequency, 30% were maximum in quantity & Daily (1 to 2 times) frequency, 20% were maximum in quantity & Monthly (4 to 5 times). In this the quantity was maximum and frequency is higher in every category so incidence of disease is higher. Group B (Healthy individuals): maximum i.e 50% were consumed

Fermented food in minimum in quantity & Monthly(1 to 2 times) frequency, 20% were minimum in quantity & Weekly (1 times) frequency, 30% were Never consumed. In this the quantity was minimum and frequency is smaller in every category so no incidence of disease.

CONCLUSION

Amlapitta is a Psycosomatic disease means Mansika bhava plays major role with Sharirika bhava, When Ahara, Vihara and Mansika condition (due to hurry, worry and curry) get disturbed they leads to Agnivaishamya which causes Annavisha formation and finally Vyadhi Amlapitta originates.

Amlapitta is a Tri-doshajavyadhi with the predominance of Pitta dosha. Amlpitta shows maximum symptoms of abnormal annavaha strotas. Now a days lifestyle and food habits has been changed drastically. Majority of the population is either inclined or attracted towards the junk food/fast food like especially fermented foods for its taste or lack of time. Change in their diet patterns, lifestyle, behavioral pattern are the causes of indigestion. Due to normal physiology of GI tract is also hampered. These are the major factors giving rise to agnimandya, vidagdhajirna which in turn convert in to Amlapitta.

The etiological factors mentioned there in are to be applied to the present day food habits for pin pointing the causative factors.

According to present knowledge the normal functioning of the Agani, Pachaka Pitta means secreto enzymatic functioning of gastro-intestinal tract is deranged in this disease.

In Sharada, Varsha Ritu and in Anupa Desha lakshna of Amlapitta gets aggrevate. All the symptomatology furnished by Aacharya Kashyapa and Madhavkara are to be considered silent features in this disease.

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