



CLINICAL EVALUATION OF *KAPHAJA HRUDROGA* ON OBJECTIVE PARAMETERS OF CARDIOLOGY

Ayurveda

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ABSTRACT

Kaphaja hrudroga is one among the five types of hrudroga mentioned in Ayurvedic classics and the symptomatology mentioned for kaphaja hrudroga such as feeling of heaviness in the chest are very common in day to day clinical practise. As there is no standardised way to assess the symptoms of kaphaja hrudroga mentioned in our classics a scoring system was assigned for each symptoms. After assessing the symptoms the subjects were evaluated with objective parameters of cardiology such as ECG, Echocardiography, Stress ECG and Chest X Ray, and the results were analysed and summarised.

KEYWORDS

Introduction

Five basic *hrudroga* types mentioned in Ayurvedic classics^{1,2,3}. Among these, symptoms of kaphaja *hrudroga* are feeling of cessation of heart, heaviness in the chest as if loaded with stone, anorexia, fever, cough with expectoration, loss of appetite and excess sleep. The presence of pain is not necessary in this type of disease. This type of clinical presentation is common in day to day clinical practise.

The description of *hrudroga* in Ayurvedic treatises is quite brief⁴ and on the basis of other diseases entities like *hrudaya vidradhi*, *pandu*, *vatasanitam* and *hrutsoolam*⁵ has to be considered in a proper way for a sound knowledge of cardiovascular diseases. In view of the increasing evidence of cardiac disorders in the present times this aspect assumes added importance for planning both strategical management.

The present study focuses on Ayurvedic concepts of *kaphaja hrudroga* screened using specific investigatory modalities of cardiovascular disease.

Objective of study:

The objective of the study was to clinically evaluate the relationship between *kaphaja hrudroga* and cardiovascular diseases with the modern objective parameters of cardiology.

It includes electrocardiogram, echocardiography, chest-X ray, stress electrocardiogram and lab investigations.

Study design:

The study was conducted as hospital based observational study

Study population

The study population comprised of patients that attended the OPD of Vaidyaratnam Ayurveda College Ollur, Thrissur screened for symptoms of *kaphaja hrudroga* mentioned in Ashtanga *hrudaya rajayakshma nidanam*⁷.

Sample size

Cases were taken as per availability during the stipulated time period allotted for the study, subjected to 30 cases. The patients were selected according to inclusion and exclusion criteria.

Duration of study:

18 months

Inclusion criteria:

Patients who have been diagnosed with symptoms of *kaphaja hrudroga* as per *Ashtanga hrudayam nidana sthanam*⁶

Table no:1

Asmavat bharikam	Heaviness in the chest as if loaded with stone
Nisteeva kasam	Cough with expectoration

Agnisadam	Loss of appetite
Nidra	Tendency to sleep
Alasyam	Fatigue
Aruchi	Anorexia
Jwaram	Feverish feeling

Age group was fixed between 25-65 years

Exclusion criteria:

Patients with congenital heart diseases
Patients with history of cardiac surgery
Patients suffering from other systemic condition such as carcinoma, AIDS

Assessment of subjective parameters:

As there is no standardised way to assess the symptoms of *kaphaja hrudroga* mentioned in our classics a scoring system was assigned for each symptoms. After direct personal interview the symptoms observed were graded as follows

Table no: 2 Assessment of *Hrudayam stabdham*

1	Absent	None	0
2	Present on strenuous activity	Mild	1
3	Present on ordinary Activity	Moderate	2
4	Present on minimal exertion	Severe	3
5	At Rest	Agonising	4

Table no:3 Assessment of *Asmavat bharikam*

1	Absent	None	0
2	Present on strenuous activity	Mild	1
3	Present on ordinary activity	Moderate	2
4	Present on minimal exertion	Severe	3
5	At Rest	Agonising	4

Table no:4 *Nisteeva kasam*⁸:

1	Absent	None	0
2	Intermittent cough in the morning and or after exercise or in connection with accelerated respiration which doesn't inhibit routine activities	Mild	1
3	Intermittent cough in the morning and or after exercise or in connection with accelerated respiration which inhibit routine activities	Moderate	2
4	Continuous cough during day as well as in the morning which inhibits routine activities	Severe	3
5	Continuous cough during day and night, which disturbs sleep and prohibits the routine activities	Agonising	4

Table no: 5 Assessment of Agnisadam:

1	Absent	None	0
2	Reduced appetite occasionally	Mild	1
3	Persistent poor appetite	Moderate	2
4	Persistent very poor appetite	Severe	3
5	Complete loss of appetite	Agonising	4

Table no: 6 Assessment of Nidra:

1	Absent	None	0
2	Occasionally	Mild	1
3	Occasional on sitting inactive	Moderate	2
4	Constant on doing activities	Severe	3
5	All time	Agonising	4

Table no: 7 Assessment of Aruchi

1	Absent	None	0
2	Occasionally on certain foods	Mild	1
3	Always to certain foods	Moderate	2
4	Occasional to all food	Severe	3
5	Always irrespective of all food	Agonising	4

Table No: 8 Assessment of Jwaram

1	Absent	None	0
2	Occasional with low intensity	Mild	1
3	Frequently with moderate intensity which does not disturb routine work	Moderate	2
4	Always with moderate intensity sometimes disturb routine work	Severe	3
5	Always with severe intensity disturbs even routine work	Agonising	4

Table No: 9 Assessment of Alasyam:

1	Absent	None	0
2	Present on strenuous activity	Mild	1
3	Present on ordinary activity	Moderate	2
4	Present on minimal exertion	Severe	3
5	At Rest	Agonising	4

Assessment of Cardiological parameters:

Electrocardiogram (ECG)
Chest X-ray
Stress electrocardiogram
Echocardiography

Observation and analysis

Hrudayam stabdham: Hrudayam stabdham was one of the diagnostic criteria for the roga. This symptom was present in all subjects. While evaluating this symptom majority of cases 50% have the symptom on strenuous activity. It may be explained that on exertion there is an imbalance between myocardial supply and demand.

Hrudayam bharikam asmavat: This symptom was seen in all subjects. Among the study subjects maximum 53.33% of subjects were having the symptom on strenuous activity.. Increased physical exertion increases the oxygen demand in the body, when demand increases there is much more variation between demand and supply. This may be the reason for both *hrudayam stabdham* and *asmavat bharikam* seen on strenuous activity.

Nisteeva kasam: Nisteeva kasam was absent in 43.34%,and when present it was seen as intermittent cough in the morning and or after exercise or in connection with accelerated respiration which inhibits routine activities in majority of 30% cases.

Agnisadam: This symptom was presented as loss of appetite and was manifested occasionally in majority of observed cases 53.33%. All the 30 cases observed had agnisadam as a feature.

Aruchi: Maximum 73.33% had *aruchi* occasionally on certain foods. *Aruchi* occurs due to *upalepa* of *kapha* in the mouth and it leads to alteration in normal perception of taste.

Nidra: Majority of cases 50% had this symptom which was observed as have tendency to sleep occasionally. *Nidra* is observed as tendency to sleep. *Kapha* vitiation leads to *atindra*.

Jwaram: In the observed cases maximum 56.67% showed *jwaram* which was presented as feverish feeling with low intensity

occasionally. Maximum cases had mild feverish feeling it indicates that *jwara* was presented as a mild form in *kaphaja hrudroga*.

Alasyam: *Alasyam* was present in 20% on strenuous activity, 70% have the symptom on ordinary activity and 10% have the symptom on minimal exertion

Assessment of objective parameters:

Chest X-ray: In the purview of present study 53.33 % had normal study. X-ray need not be a specific tool in *kaphaja hrudroga*

Electrocardiogram: Among the study subjects 3.33% had ST segment and T changes in ECG, 16.67% had Left Ventricular Hypertrophy and 80% had normal ECG, even though 46.67% were diagnosed as having coronary artery disease. It can be attributed that ECG can be a preliminary and primary screening tool in a selected group of cases having coronary artery disease. On the other hand significance of ECG in the consideration of *kaphaja hrudroga* is negligible.

Echocardiography: Echo is considered to be a useful tool in many categories of cardiovascular disease, valvular disease etc. In the present study 23.33% had hypertensive heart disease with diastolic dysfunction, 6.67% had ischemic heart disease, 16.67% had left ventricular hypertrophy, 3.33% had concentric LVH and 50% had essentially normal study. Thus it can be incorporated that echo is a definite tool in picking up cardiac cases from a cohort of *kaphaja hrudroga*.

Data related to Stress electrocardiogram: Stress ECG is considered to be a gold standard in differentiating patients having definite cardiac anomalies and other overlapping clinical conditions including functional overlay. Among the cases 53.33% had TMT negative and 46.67% had TMT positive. The observed cases of *kaphaja hrudroga* showed positive as well as negative TMT. It can be interpreted as coronary artery disease as well as non ischemic heart disease comes under the purview of *kaphaja hrudroga*, as Treadmill stress testing is indicated for diagnosis and prognosis of cardiovascular disease, specifically Coronary artery disease..

Summary and conclusion

- *Kaphaja hrudroga* encompasses a broad spectrum of cardiovascular disease such as coronary artery disease and hypertensive heart disease
- ECG shows normality in 80 % of the cases studied and hence ECG is not a primary tool to be recommended in *kaphaja hrudroga* diagnosis or confirmation.
- Chest X-ray need not be a mandatory tool in *kaphaja hrudroga* studied cases.
- The echocardiographic feature showed normalcy as well as abnormalcy in the diagnosed *kaphaja hrudroga* cases, the echocardiographic features of hypertensive heart disease and left ventricular hypertrophy come under the purview of *kaphaja hrudroga*
- On assessing the distribution of cardiovascular disease 60% were having cardiac manifestation and 40% were having non cardiac manifestation
- On assessing the type of distribution of cardiovascular disease 77.78% were having coronary artery disease and 22.22% were having hypertensive heart disease

Limitation of study:

- Since the investigation was part of an academic research relatively sample sizes of just 30 were included.

Suggestions for further study

- This study could be done in a large sample and from varying population from different parts of the country.

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