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## Review Article

### PSYCHOLOGICAL ASPECTS OF CARDIOVASCULAR DISEASES AND THE HOLISTIC APPROACH OF AYURVEDA

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#### ABSTRACT

Psychosomatic approach is a unique concept stated in Ayurveda which is the base for understanding the health and diseased state of an individual. Chikitsa is also based on this concept. Cardiovascular disorders are the most common causes of death in adult life in industrialised societies and are increasingly important in developing countries. It has been stated that emotional distress is the main causative factor for various cardiovascular disorders. This represents psychosomatic interaction in the manifestation of the disease. In Charaka Samhita it is mentioned that Chinta, Bhaya, Trasa and Abhighata are the etiological factors for Hrudroga (Cardio vascular disorders). Satvavajaya Chikitsa, a type of treatment modality is said to be effective in the diseases where 'Psyche' is involved. Different forms of Satvavajaya Chikitsa viz. Jnana, Vijnana, Dhairya, Smruti, Samadhi – are very useful in all forms of psychosomatic disorders. These techniques are mentioned in abstract form in the classical Ayurvedic texts and hence here an effort has been done to explore and explain them based on its application value.

**Keywords:** Cardiovascular diseases, Satvavajaya chikitsa, Jnana, Vijnana, Dhairya, Smruti, Samadhi.

#### INTRODUCTION

Emotional fitness of an individual is just as important as his physical fitness in maintaining a state of good health<sup>1</sup>. Negative emotions such as anger, depression, anxiety, fear, hostility etc., have been considered as mental disorders by acharyas of Ayurveda<sup>2</sup>, a continued association of which has a great deal of impact on the physical state of being<sup>3</sup>. The inter relationship of body and mind has been illustrated by the analogy of "Taptajya and ghata" Which says that if the ghee is hot (mind) it also heats its container (body)<sup>4</sup>. The mental status of a person affects all the systems of the body without an exception. Hence almost all diseases are psychosomatic in nature according to Ayurveda. However of all the parts of the body, the association of heart with mind holds a place of special distinction. Heart has been considered as the seat of consciousness, mind, effort and even life itself<sup>5</sup>. A clinician needs to realise that mind is a huge part of heart in its healthy and diseased state and psychological factors have great influence in the development, clinical expression and prognosis of a heart disease.

#### Negative Emotions as Etiological Factors of Heart Disease

Anger and its poor management have been implicated in the aetiology of heart disease. Studies indicate that those who are highly anger prone are three times more likely than those who are not anger prone to have a heart attack<sup>6</sup>. Depression too plays an important role in the manifestation of a cardiovascular accident. Cynical thoughts, hostility, and fear are the other predictors of the development of ischemic heart diseases<sup>7</sup>. It is hypothesized that hostility and other emotions increase the risk of a cardiac event by causing the reduction in the tonic vagal cardiac modulation and shifting of autonomic balance in the direction of sympathetic predominance. Imbalance of the neurotransmitter serotonin is said to be another biochemical basis of heart attack. Psychological distress has been found to elevate the resting heart rate and BP, decrease the heart rate variability and increase the possibility of ventricular arrhythmias and myocardial ischemia. There is also an increase in platelet count and activity and this in combination with increased levels of coagulation factors and plasma fibrinogen may have additive effects in occlusive thrombus formation<sup>8</sup>. The idea that emotions and feelings may contribute to the cause of heart disease is not a new one. Charaka Samhita has rightly

recognized negative emotions such as Chinta, Bhaya, Trasa and Abhigata among the primary etiological factors of hrudroga. Shoka (depression) has been considered as the specific negative emotion responsible for vataja hrudroga, krodha (anger) is the specific etiological factor for pittaja hrudroga<sup>10</sup>. As a natural response to these negative emotions there is a rise in the level of mental morbid factors, rajas in particular, which in turn vitiates the corresponding dosha either vata or pitta. As a sequel of these pathological changes in the somatic level vataja hrudroga or pittaja hrudroga results. The role of vyana vayu situated in hrudaya<sup>11</sup> seems to be crucial in the development of ischemic and pain predominant heart diseases and the resultant arrhythmias.

#### Psychological implications of a major cardiac event

Any major crisis, injury or illness affects a person physically as well as emotionally. When someone has a cardiac event such as a heart attack or cardiac surgery, he experiences symptoms of psychological distress. This is a normal reaction to the life threatening event. It is existential and generated by the fear of life. This time it is the hot container (body) which melts the ghee (mind) in it. Emotional reactions to the development of a heart disease often include the aspect of shock, fear, anger, guilt, sadness and grief<sup>12</sup>. The intensity of these reactions has to come down when once medical emergency is over and the patient recovers. But in a vast majority of patients the wide spectrum of emotional responses continues to affect the individual even after the physical recovery. In fact they may become more focused once the medical emergency is over. These psychological implications can take a heavy toll not only on the prognosis of the heart disease but also on the quality of life if not attended properly. Hence it is important to be aware of the emotional responses a patient and his family may experience during a post crisis period. Following are the common emotional reaction to a cardiac crisis:

#### Denial

Since no individual wants to experience something unpleasant and painful, the disease may not be accepted by the conscious psyche, one may deny the event itself by considering it “not quite serious” and failing to seek and comply with medical advice. The maladaptive denial may lead to life threatening emergencies.

#### Frustration/Aggression

The thought of possible death, idea of physical limitation, dependency and other unknown consequences associated with the disease may cause frustration. It may be expressed in the form of anger, irritability and aggression directed at the people in the surroundings.

#### Dependency

Dependency developed at the hospital due to physical limitation may continue, in spite of physical fitness. Often a spouse may over protect the patient thereby helping him to maintain his dependent or sick role. There may also be total reliance on medical staff and their instructions. Passive receptive behaviour and lowered self esteem, social isolation, sense of loss, feeling of insecurity are the other psychological implications commonly experienced.

#### Depression

Depression is a common problem in patients with heart diseases. The rate of major depression in M.I. patients is about 15-20 %, the rate of minor depression is estimated to be around 30 %. Generalized anxiety disorder, phobia, post traumatic stress disorder is the other disorders which are frequently experienced by the patients after a myocardial infarction or a cardiac surgery.

#### The role of satvavajaya in preventive and rehabilitation cardiology

Ayurveda may not play a significant role in the acute management of cardiac emergency. But it can definitely play a major role in preventing and rehabilitating a patient once the medical emergency is over. In a long run the “healing of heart” involves not only the medications for the ailment but also the healing of mind present with it. Satvavajaya- the Ayurvedic method of psycho behavioural therapy is particularly suited for this purpose with its broad base and holistic approach. These methods can also be used to prevent a heart attack in identified high risk group by developing a mature defence mechanism. By definition satvavajaya is the victory of satva over the morbid factors of mind namely rajas and tamas. The goal of therapy is to practice methods of controlling mind from unwholesome objects, to potentiate satva with intention of modifying the maladaptive behaviour caused by rajas and tamas<sup>13</sup>. Satvavajaya chikitsa is the treatment modality implemented by ‘self control’. In Charaka samhita, it is defined as therapy which controls mind and here emphasis has been laid on restraining mind from unwholesome objects. Thus it includes all the methods of “Mano nigraha”. In Charaka Samhita 3 modalities of treatment are explained under Satvavajaya chikitsa.

1. Trivargasya anvavekshana- Strive for discarding the harmful or unwholesome regimen and adapt wholesome ones in regard to Dharma (virtue), Artha (wealth) and Kama (desire).
2. Tadvidya seva- Following the guidelines advised by the persons well versed in the knowledge of nature and cure of psychic disorders.
3. Atma, Desha, Kala, Bala, Shakti vijnanam- Acquiring the knowledge of self, the place, the family, the time, the strength and the capacity. Repeated consideration of these factors in relation with usefulness and harmfulness to self.<sup>14</sup>

Concept of achara rasayana cited in Charaka samhita, has direct effect on potentiating of satva guna of manas. It is having similarity with self Actualization process, a part of modern psychotherapy, a preventive method. Most of the aspects dealt in achara rasayana are directly related with mind and thus points at the necessity of psychological well being of an individual in attending longevity and health. A practicable model of behavioural psychotherapy based on Ayurvedic principles suited for cardiac rehabilitation must consist of the following components<sup>15</sup>.

#### Jnana therapy

Definition- Jnanam adhyatma jnanam; jnanam is getting to know self.

Goal- Providing support to develop a realistic insight about him.

### **Techniques**

- Identification and correction of irrational / negative thinking
- Support to reveal and understand the source of his problem
- To assess the kaya / prakruti of the patient and the subsequent attitudes and behaviour.
- Support for self evaluation and monitoring.

### **Achievements**

- Individual's habitual mode of thinking is broadened.
- Facilitates normal psychological status.
- Improved degree of behavioural control and emotional maturation.
- Better adaptability and acceptance of the disease.
- Less dependency.

### **Vijnana therapy**

Definition- vijnanam sastra jnanam- Vijnana is the textual knowledge.

Goal- Providing guidance to understand the nature of illness and improve his coping abilities.

### **Techniques**

- Identification of irrational beliefs and apprehensions about heart disease with relation to physical activities, sexual activities and diet.
- Providing a theoretical knowledge of the heart problem to the level of his understanding.
- Educating about the probable emergencies, complications and risk factors involved after a cardiac event.
- Educating the spouse and other close relatives for a good family support.

### **Achievements**

- Avoidance of misconceptions and better coping abilities.
- Avoidance of risk factors and adaptation of preventive measures lessen the chance of a further attack.
- A good rapport with the family and therapist.

### **Smruti Therapy**

Definition- Smrutihi anubhootarha smaranam

Smruti is to understand the exact nature of the object by previous experiences.

Goal – to learn from previous experiences

### **Techniques**

- Probing the past to develop an insight about the present problem.
- To make the patient understand the unrealistic nature of the problem.
- Identification of the situations which triggers negative affectivity and training to consider them in a less personal way.

### **Achievements**

The hidden emotional conflicts are exposed, stress is released.

### **Dhairya therapy**

Definition- Dhairyam anunnati chetasaha

Maintenance of mental balance even when one is under stress.

Goal- To develop better coping abilities

### **Techniques**

- Supportive counselling tailored to the individual needs.
- Identification and modification of environment which maintain the symptoms.
- Reassurance and boosting the confidence of the patient and his family.

### **Achievements**

- Better coping abilities.
- Decreased levels of depression, anxiety, frustration and other negative emotions.
- Decreased dependency and passivity.
- Better self esteem.
- Acceptance of heart disease like any other disease.

### **Samadhi (psycho philosophical therapy)**

Definition – Samadhi vishayebhyo nivrtya atmani manaso niyamanam

Restraining mind from worldly objects and meditating on the spiritual level of personality.

Goal- To achieve higher awareness and tranquillity of mind

### **Techniques**

- Meditation, pranayama and other oriental techniques.
- Reinforce positive emotions in place of negative emotions.
- Increase the rate of pleasant activities.
- Support for reconsidering their values regarding life and death.

### **Achievement**

- Perception of stress is minimized.
- A positive outlook about life and the disease is developed.
- There is an increase in mental tranquillity.
- The fear of death as a consequence of a heart ailment is considerably reduced.
- Positive emotions such as joy and contentment speed the recovery from the cardiovascular sequel of negative emotions.

### **CONCLUSION**

Cardiac diseases are said to be life style disorders which are due to altered life style and stress. Different negative emotional components affect the cardiac physiology. Ayurveda states Chinta, Bhaya, Trasa and Abhigata as the etiological factors for hrudroga. Satvavajaya Chikitsa, a unique form of treatment deals with the method for modulating mind. Jnana (technique helpful to provide support to develop a realistic insight about self), Vijnana (Modality which helps to understand disease and to cope up with it), Dhairya (Therapy which enhances coping capability), Smruti (Method which helps to understand the situation based on previous experiences) and Samadhi (Process helpful to achieve higher awareness)- are the different forms of Satvavajaya Chikitsa, which will be helpful to prevent cardiac disorders due to emotional components and at the same time are useful to check the cardiac pathologies due to stress and strain.

**REFERENCES**

1. Sushruta, Sushruta Samhita, Acharya Yadavji Trikamaji. And Acharya NR, 9<sup>th</sup> Ed, Varanasi, Chowkhamba Orientalia; 2007. p. 75
2. Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 254. / Sushruta, Sushruta Samhita, Acharya Yadavji Trikamaji. And Acharya NR, 9<sup>th</sup> Ed, Varanasi, Chowkhamba Orientalia; 2007. p. 8.
3. Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 254.
4. Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 323.
5. Sushruta, Sushruta Samhita, Acharya Yadavji Trikamaji. And Acharya NR, 9<sup>th</sup> Ed, Varanasi, Chowkhamba Orientalia; 2007. p. 358. / Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 468.
6. Williams *et al.*, Eysenck, Type A behaviour, hostility and coronary atherosclerosis, psychosomatic medicine 1999; 42: 539-49.
7. Kanfrman WM *et al.*, Relation between myocardial infarction, depression, hostility and death. Am. Heart J 1999; 138: 549-554. [http://dx.doi.org/10.1016/S0002-8703\(99\)70159-6](http://dx.doi.org/10.1016/S0002-8703(99)70159-6)
8. Ibid.
9. Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 602.
10. Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 100.
11. Vagbhata, Astanga Sangraha, Kaviraj Atridev Gupta, Reprint Ed, Varanasi, Krishnadas Academy; 2005. p. 160.
12. Shapiro P. Psychiatric aspects of cardio vascular diseases. Psychiatric clinics of North America; 1996. p. 613-628. [http://dx.doi.org/10.1016/S0193-953X\(05\)70308-7](http://dx.doi.org/10.1016/S0193-953X(05)70308-7)
13. Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 77.
14. Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 78.
15. Agnivesha, Charaka Samhitha, Acharya Yadavji Trikamaji (Editor), Reprint Ed, Varanasi, Chowkhamba Sanskrit Samsthan; 2006. p. 16.

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