Case Report

Ayurvedic approach to treat Hridroga (valvular heart disease): A case report

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A R T I C L E   I N F O

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A B S T R A C T

Kabhatika Hridroga (valvular heart disease) embodies a significant part of cardiovascular disease. There are many causes for valvular heart disease of which, the rheumatic fever is an important one. This study is a case report of a patient awaiting mitral valve transplant for valvular heart disease (i.e., mitral stenosis attributed to rheumatic fever), who responded well to Ayurvedic management. After 11 months of treatment, 3D cardiovascular cartography showed increase in mitral valve area from 1.3 sq cm to 3.52 sq cm (normal size is 4–6 sq cm). The present case report showed that Ayurveda has a great potential for the treatment of valvular heart disease and merits further research.

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1. Introduction

The word ‘Hrudaya’ in Ayurveda is a synonym for heart in Modern medicine. The name itself indicates the function of this vital organ. ‘Hru’ means, one which draws fluid or blood from the body forcibly [1] and ‘Da’ which means to donate. Simply saying, Rasa (body fluids) and Rakta (blood) are circulated in the body, by the dual action of forcible collection and supply by the heart and thus the name Hrudaya in Ayurveda. This is the fundamental function of the heart. According to Ayurvedic texts, the heart originates from the essence of Rakta and Kapha, predominantly from maternal side, and develops into a muscular organ [2]. Movement of the heart is controlled by Vyananavayu and so is the case of valvular disorders. It can be assumed that the pericardium is developed from Meda, myocardium from Mamasa and endocardium from Rasa and Rakta. Retention of vitiated rasa and rakta circulated in the endocardium may gradually develop valvular inflammation which in due course turns to another state of infection and ultimately in state developing Krimis. If this state continues for a prolonged period, due to mamsadusti, valves become degenerate, and valvular disorders like stenosis and regurgitation occurs. Characteristic feature of valvular heart disease is the presence of murmur. Mostly this disease is rheumatic in origin. This may be considered as a synonym for amavatha. So the treatment aims fundamentally to correct the imbalanced vata, rasa, rakta and mamsa. No synonym is found in Ayurvedic texts for valvular heart disease. Yet, they can be successfully treated by Ayurvedic medicines. Hundreds of formulations are portrayed in Ayurvedic classics.

2. Presenting complaints and medical history

A 40 year old married lady consulted in an Ayurvedic clinic at Kottayam, Kerala on 31.05.2015 with cardinal symptoms of breathing problem, chest pain followed by fainting for few seconds, difficulty in climbing steps. Other complaints included mild Bhrama (vertigo) breathing problem, Anaha (bloating), Agnimandya (Loss of appetite), palpitation, tiredness, burning ankle joints, left elbow joint pain, mild pain in right calcaneal area, regular throat irritation and colds, sneezing and severe klama (fatigue). Patient was not responded to earlier treatment ie., with Ecosprin and Anti hypertensive medicines. Use of antihypertensive medicine resulted in severe BP fall, and when the medicine to correct BP fall was administered the BP will again shoot up. So they dropped antihypertensive medicine.

In 2012, diagnosis of valvular heart disease was made, based on clinical findings, cardiomegaly on X-ray (04.06.2012) and ECHO findings (31.07 2012), confirming Valvular Heart Disease. For a long time, the case was under the surveillance of a leading Cardiac Surgeon in Chennai, and waiting for a surgical transplantation of...
Liver was mildly palpable.

seated, Aortic Rub, right calcaneal pain, silent nasal polyps, mid APA -IGM become normal. She has a history of two abortions. stopped medicines for Addison’s disease by 2005, after APA -IGG reduction of blood images. By this non-invasive test we can critically analyse for an 4. Diagnostic focus and assessment

valves.

4. Diagnostic focus and assessment

To assess the actual condition of the patient, three main investigations are done. One is 3D Cardiovascular Cartography test images. By this non-invasive test we can critically analyse for an early detection of Coronary Heart Disease. It measures the reduction of blood flow to the various regions of the heart. If there is a significant reduction of the blood flow, it is suggestive of the presence of obstruction (blockage) in blood vessel, which is decreasing the blood flow. It also provides an assessment of the functional status of heart, including how stiff the blood vessels are, the likelihood of clot formation, pumping capacity of the heart, size of the mitral valve, global cardiac efficiency and aortic valve orifice etc. This produces a complete cardiovascular physiological profile of a patient consisting over 64 cardiovascular functional parameters that directly aid in perfect diagnosis. Secondly the echo tests. Thirdly laboratory investigations, as follows.

5. Therapeutic focus and assessment

In this case, Ayurvedic diagnosis and interpretation is, accounting modern diagnosis also. Heart disease is the well known complication of amavatha. Ayurvedic texts mention two complications of amavata i.e., Hrudayavishudhi (unclean state of heart) and Hrudagraha (impairment function of heart). In this case treatment is for hrudagraha, since Valvular heart disease is a complication of ama-vata. Basic principles of treatment applied here is as follows.

1. Lamghana: i.e., fasting or light diet, Restriction of diets as mentioned in Ayurvedic texts such as Charaka.

2. Virechana: Mild purgation at regular intervals helps in getting rid of accumulated ama from the body.

3. Deepan Panchan medicines: Bitter purgent and deepan-pachan medicines which help digestion of ama. Deepan medicines act indirectly by stimulating digestive and tissue enzymes. While, pachan medicines help digestion by their direct action on food.

4. Rasayana and Ojaskara Oushadhas: After entire ama has been completely eradicated from the body as evidenced by feeling of body lightness, devoid of earlier presenting complaints, zeal, absence of joint swelling etc. Rasayanojaskara medicine are administered. In this case Punarnava Baladi ksheerapaka is given during the entire period of treatment, because of its Deepan, pachan, shodhan, sophahara, and Srotho shodhana properties. Besides, it is pushktikrit and khayanashana. Here we want the valves to be repaired by pushktikrit medicines. This will purify and rebuild the vitiated Ras,Rakta, Mamsa and medas. Rasayana and pushktikrit -khayanashana medicine can do this function effectively. Selection of medicines were, to serve the above purpose.

5. All the medicines except Herrak Bhasamam were given in usual dose. Heerak Bhasamam 100 mg was divided to 15 parts and one part with honey was advised in the morning after food and another doze in the night.

6. The patient was treated with Kashayams such as Dashamoola Punarnavadi, Thrvantyadi, Rasna Dasamoolam, Punarnava Abhyadi, Vidaryadi, Nimbhathwadi Kashayam, and Padhyapunarnavadi Kashyam, Arishtas such as Partharishtam, Dasamoolarishtam, Rohet-takarishtam, tablets such as Tab.Cardinox, Caps.Heartin, Tab.Hepano, Tab.Hridayarnavras,Tab.Sankara Bati, Tab.Chintamoni Ras, Tab. Sidhamarakadhwajam, Dasamoolahareetaki, Brahma Rasayan, Heerak Bhasamam, Punarnava Baladi ksheerapakam, Arogyavardhini, Panchakolachooram (Rice Kanji), Arjuna Kheerapakam, Dhanwanthar-antitaii pichu on chest, Gandharva Hastadi Erandam or Nakulatailam for mild purgation weekly twice. Symptom of hepato-megaly may be the result of prolonged use of steroids. Special instructions were given to calm the mind by breathing exercise and meditation. The details of treatment are given in Tables 1 and 2.

6. Follow up and outcomes

Follow up has done regularly. After five months treatment patient felt good health and devoid of major complaints. Treatment continued for a further period of six months altering few medicines according to presenting symptoms.(see the time line chart). On 13.05.16 a follow up 3D Cardio Vascular Cartography test was done. It was found that the Mitral valve orifice rebuild to
Table 1
Timeline of events.

| Sl. No | Date of Consultation | Symptoms | Clinical findings | Laboratory findings | Treatment given |
|-------|----------------------|----------|------------------|---------------------|-----------------|
| 1     | 07.06.2015           | Breathing problem, Chest pain and fainting, Recurrent episodes of throat pain and cold. Difficulty in climbing steps | Multiple joints pain, Calcaneal pain, Mild deformities, Ayuvertic rub, Mild bhrama, body pain, fatigue | As in lab chart | Dasamoolam Punarnavadi and Thrayanthiyadikwath, Caps. Sing nada Gulgulu, Tab. Hrdaya naravars, Caps. Heartin, Aswagandharjunras, Hirdaya Sudha, Tab. Cardinox, Tab. Cosylv, Tab. Sankara Bati, Heerak Bhasam, Punarnava Baladi Ksheera Pakam, Gandharva Hastadi Ernadam, Bihra Santindhavati Taliam, Dhavalapam |
| 2     | 22.10.2015           | Feels better for above symptoms | Palpitation, Distension | As in lab chart | Other medicines continued. |
| 3     | 31.12.2015           | Body oedema mild, fatigue | Mild oedema seen on joints | As in lab chart | Dasamoolam Punarnavadi and Rasna Dasamoolam, Caps. Heartin, Caps. Bonton, Aswagandharjunras, Dasamoolarishtram, Tab. Cardinox, Tab. Hepar, Dashamool Hareetakli, Caps. Obesi, Tab. Sankara Bati, Punarnava Baladi Ksheera Pakam, Kethakreeomoladi - KarpooRADi Taliam, Heerak Bhasam, Dhanwantara Taliam (Pichu), Gandharva Hastadi Ernadam |
| 4     | 24.03.2016           | Body itching, sramam, Klamam | Oedema subsided, liver palpable | Advised for 3D CCG, followup | Dasmoolam Punarnavadi and Thrayanthiyadi, Caps. Heartin, Caps. Lif Plus, Tab. Cardinox, Tab. Hepar, Brahma Rasayan, Tab. Vidaryadi, Tab. Sidhamakaradwajam, Punarnava Baladi Ksheera Pakam, Heerak Bhasam, Dhanwantara Taliam (Pichu), Nakula Taliam (instead of Gandharvahastadi Ernadam), Hareedra Khandam |
| 5     | 10.05.2016           | Itching decreased, Total health Better, Mild Aruchi, No breathing problem, No Chest pain, No fainting, No throat pain, No Cold, Climbing steps withoud difficulty. | Sramam mildly better, periods time pain, Mild loss of appetite | As in Lab Chart | Other medicines continued. |

Table 2
Laboratory tests.

| Test Name | Result Date | Result Date | Result Date | Result Date |
|-----------|-------------|-------------|-------------|-------------|
| HB%       | 12          | 12.2        | 11.5        | 11.6        |
| TC        | 9800        | 9200        | 8800        | 9400        |
| Poly      | 65          | 60          | 60          | 62          |
| Lymph     | 30          | 37          | 36          | 34          |
| Eosinophils | 5            | 3%          | 4          | 4          |
| Monocytes | Nil         | Nil         | Nil         | Nil         |
| ESR       | 48          | 35          | 35          | 37          |
| ANA       | 8.92        | 9.27        | 3.59        | 3.95        |
| Anti Ds DNA | 3.25         | 3.65        | 3.02        | 14.12       |
| ASO Titer | 154.85      | 132.05      | 142.31      | 143.28      |
| CRP       | 3.53        | 1.59        | 3.14        | 1.62        |
| S.Calcium | 9.1         | 9.4         | 8.6         | 8.4         |
| S.Uric Acid | 7.6         | 7.3         | 5.6         | 5.6         |
| RA        | 9.4         | 9.45        | 9.1         | 9.52        |
| Hs CRP    | 0.925       | 0.248       | 0.39        | 0.625       |
| RBS       | 89          | 82          | 86          | 85          |
| S.Bilirubin | 0.9          | 0.8         | 0.8         | 0.6         |
| Direct    | 0.4         | 0.4         | 0.4         | 0.4         |
| Indirect  | 0.4         | 0.4         | 0.4         | 0.4         |
| SCOT      | 39          | 35          | 39          | 23          |
| SCPT      | 48          | 43          | 31          | 28          |
| BUN       | 15          | 14          | 14          | 15.4        |
| S.Creatinine | 1.2        | 1.01        | 1.14        | 1.22        |
| Ratio B/C | 13.8:1      | 13.05:1     | 12.2:1      | 11.1:1      |
| AFP       |             |             |             | 4.4         |

3.52 Sq.cms from 1.37 Sq.cms. Total arterial compliance becomes normal. Refer the 3DCCG Summary, before treatment and the 3DCCG Summary, after treatment to assess the improvement.

7. Discussion

In Ayurvedic texts, two complications of Amavata are explained, one is Hridayavisshadi and another is Hridgraha (Cardiology in Ayurveda by Dr. V. B. Athavale). Hridayavisshadi may be considered as the unclean state of the heart and Hridgraha as the impaired condition. Due to regular and prolonged accumulation of the Ama in the heart, the proper function of the heart may get impaired. Accumulation of ama in the endocardium gives rise to valvular heart disease [1]. In amijaara, Hridayavisshadi is one of the symptoms. In charaka samhita there are so many clinical features of hridroga, which may correspond symptoms of valvular heart disease. Vaivarna, Kasa, Swasa, Murcha, Ruja and Jwara are mentioned in charakasamhita. Swasa (dyspnoea) and tamakaswa are differentiated. In which Tamakaswa is a sign of Hridayavisshadi and whose cardinal symptom is ‘Asine labhatesaukhyam’ [2]. So, swasa may be correlated to Hridgraha, an advanced impaired state of heart. In this case, valvar heart disease is included in Hridgraha category. Medicines selected are mainly having Deepana-Pachana-Hridya properties. Another aim was to rebuild or correct the degenerated valves to its original texture by administering pushktikrit or other medicines continued.
kshayanashanam medicines. Before and after treatment, special care was given to apply techniques and methods of modern science to test and validate the results. Most of the modern doctors didn’t accept the 3D cardiovascular test, so an echo test was also done for the acceptance of modern fraternity and to establish the efficacy of the age old indigenous System, Ayurveda.

8. Conclusion

This case emphasises, the need of the era to develop Ayurvedic Cardiology Management widely. In such cases surgical intervention is the only remedy in modern medicine. While, in Ayurveda so many drugs are available to treat different conditions of heart disorders, which are helpful in preventing, treating, relieving the symptoms and take care of the valves from further damage. By intensive practical study we can sort it out. In this case no Panchakarma Therapy was advised due to the patient’s job related inconvenience. Surely, Panchakarma will fortify the effect of the normal treatment and we can minimize the period of medication to a certain extent.

8.1. Patient viewpoint

The patient was highly satisfied with the line of treatment. She has no chest pain and associated symptoms now. No fatigue. She is doing routine work effortlessly. Recently, she climbed a hilly area without any discomfort. The quality of personal and official life of the patient has improved a lot. Instead of a blank future she has now developed confidence and total well being.

8.2. Patient consent

Written permission for publication of the case study had been obtained from the patient.

Sources of funding

None.

Conflicts of interest

None.

References

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