Original Research Article

Effective Ayurvedic treatment of ASD-VSD with pulmonary hypertension-A Case report with long term follow up

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Abstract
Introduction: Congenital heart diseases are encountered in 0.5% new born children seen in clinical practice. Atrial Septal Defect & Ventricular Septal Defect gives rise to left to right shunt. Most of these defects are corrected by surgical intervention to save life. However, people are unaware that these defects could be corrected conservatively by Ayurvedic line of treatment.

Case Report: A four month old female child was suffering from dyspnoea and tachycardia in the year 2002. She was investigated and was found to be suffering from ASD 4 mm and VSD-12 mm with pulmonary hypertension. Immediate surgical intervention was suggested and the estimated cost of the cardiac surgery was told to be Rs. 1.5-2 Lac, that was unaffordable to the parent, who was a teacher; therefore, the case approached to Ayurvedic branch of Indian Medicine in Sassoon General hospital, Pune (India). She was conservatively treated by Ayurvedic line of treatment. Her ASD was closed within two months. VSD was reduced to 4 mm when last checked in 2015. Case is completely healthy and leading a normal quality of life till date.

Conclusion: Ayurved has strength and ability to treat congenital heart disease conservatively.

Keywords: Congenital heart disease, ASD-VSD, Pulmonary hypertension, Ayurvedic management.

Introduction
Congenital heart disease is the abnormality in heart since birth. The incidence of congenital heart diseases in India amounts to nearly 9/1000 population1. Around 10 million babies are born every year in India with congenital heart diseases. As per one survey made in North Central India, prevalence of congenital heart diseases was found to be 19.14 per 1000 individuals of age group 0-5 years of age. The most common defect was Ventricular Septal Defect (33%), followed by Atrial Septal Defect (19%) and Tetralogy of Fallot (16%), followed by other congenital heart diseases2. Harsh Mohan reported incidence of congenital heart diseases as 0.5% of all newborn children. The cause of congenital heart diseases is unknown and may be attributed to genetic and environmental factors3.
In ASD and VSD since there is shunting of blood from Left to right (Acyanotic heart disease),
giving rise to volume load in Rt. side of heart, leads to pulmonary hypertension and Rt. ventricular hypertrophy. Such changes are noticeable in early life. Pulmonary hypertension is defined as a mean pulmonary arterial pressure ≥25 mmHg measured during right heart catheterization at rest\textsuperscript{4}. There is significant mortality and morbidity attributed to Pulmonary hypertension. It is documented that 60% cases of congenital heart die within 2 years of life\textsuperscript{5}. But we can save 90% of congenital heart diseases if timely surgical intervention is undertaken. However in developing countries, the high cost of the cardiac surgery is the major constraint making such surgeries unaffordable\textsuperscript{6}.

**Case Report**
In the year 2002, a four month old female infant was suffering from dyspnoea and uneasiness. Tachycardia was noted. She was investigated in Cardiac department of Sassoon General hospital, Pune (India). She was found to be suffering from ASD-4mm and VSD-12 mm. Her VSD was placed immediately below Aortic valve; a condition difficult to operate. Her pressure in Pulmonary artery was 28mm Hg. That indicated Pulmonary hypertension. Her parents were advised to undergo immediate cardiac surgery for their daughter. The estimated cost of the cardiac surgery was told to be Rs. 1.5-2 Lac that was unaffordable to the father who was a teacher. Further it was explained to the parents that the surgery has inherent risk and chances of the post operative mortality were high. Therefore for searching alternative line of treatment, they approached to Ayurvedic branch of Indian Medicine in Sassoon General hospital, Pune.

Case was admitted in 20 bedded Ayurved Research ward of Sassoon General hospital, Pune.

**Abhyantar Chikitsa: (Oral treatment):**-The baby was given Suvarn siddha Jala 5 drops twice BD, along with quath made of bark of Vata (Ficus Bengalensis), Udumbar (Ficus racemosa), Pipal (Ficus religiosa) and Arjun (Terminalia Arjuna) 5 drops twice daily. She was breast feeding, hence her mother was also given same quath mentioned above, 30 ml BD orally; so that part of the constituents of the quath may reach to the breast feeding baby through breast milk. She was administered a course of Laghumalini vasant, followed by Madhumalini vasant and further followed by Suvarnamalini vasant for a period of 3 months each. This was continued every year. The dose was increased as per her age till she attained 15 years of age.

**Panchkarma treatment:** The baby was given Hrid-basti of Maha Narayan tail on the chest daily for one month. Her mother was taught how to carry out Hrid-basti; which was to be continued at home. When the girl became 5 years of age, every year she was administered a course of Yogbasti in Varsha ritu (Rainy season) for a period of 7 days. When the girl became 8 year old, she was administered a course of 3 days of Snehan followed by Vaman. every year till she became 15 years of age.

**Response to treatment:** Her complaints disappeared within 2 weeks of Ayurvedic treatment. Pulmonary hypertension became normal. Her ASD was completely closed within 2 months of Ayurvedic treatment. Her VSD was remained to be 4 mm when last investigated at the age of 15 years. Clinically she was completely normal and used to go to school on bicycle, taking part in dance competition and used to play music also. Now she is 20 year old and studying in second year of BSc (Agriculture) at Baramati near Pune. Without undergoing difficult cardiac surgery, Ayurved has given her life with meaningful quality of life.

**Discussion**
In Ayurved heart, brain and kidneys are termed as Saddya Pranhar marm-Trimarma/ 3 Vital organs. Congenital anomaly in heart is due to vitiation of Vata. We used quath of bark of Vata (Ficus Bengalensis), Udumbar (Ficus racemosa), Pippal (Ficus religiosa) and Arjun (Terminalia Arjuna) 5 drops twice daily. It helped to close the
septal defect. Arjun (Terminalia Arjuna) is sheetal, particularly helpful in heart diseases and also is Vran-nashak. Bark is the skin of tree, similar to Atrial or ventricular septum is the skin of heart. With the famous principle mentioned in classical text as "Samane Samane Vriddhesham", bark of these 4 Kshiri vruksha was used. Combined use of quath of all of these 4 Kshiri vruksha/ trees helped to heal the ASD & VSD. In the present case ASD was comparatively small but was producing pulmonary hypertension. ASD was completely healed/ closed within 2 months of period and pulmonary hypertension also retrieved to normal. VSD was moderately enlarged and its dimension slowly reduced with the effect that it did not affect physical development and the girl is living normal life, maintaining complete quality of life. Laghumalini vasant, followed by Madhumalini vasant and further followed by Suvarnamalini vasant took care of the nourishment of the heart and overall health of other vital organs of the body. Effect of Suvarnamalini vasant is specially as immunoprotective, heart protective, which was very much required for the survival of the baby. We have given course of Hrid-basti/ using Narayan tail. Narayani is called as Shatavari; which has special action on Mauns dhatu, Snehan by Narayan tail facilitated closure of ASD. Hriday/ Heart along with its 10 vessels is the Mool sthan of Rasavah strotas. Mala of Rasa is Kapha; hence to pacify Kapha we have administered Vaman every year.

This case could not have been survived if cardiac surgery was resorted. As mentioned earlier, the position of VSD was placed immediately below Aortic valve; a condition difficult to operate. Her pressure in Pulmonary artery was 28mm Hg at rest, which might have been a crucial factor in determining the chances of survival of the baby. It is pointed out here that at the age of 11 years, father of this girl consulted a renowned cardiac surgeon in Mumbai, who also opined that the position of VSD has made cardiac surgery impossible and advised to continue with the Ayurvedic line of treatment. Supportive Ayurvedic treatment is still continued and the girl is completely normal that may be visible by looking at Fig. no. 2.

**Conclusion**

Thus Ayurvedic treatment facilitated closure of ASD -VSD and has saved life of a female child. Ayurvedic treatment may replace cardiac surgery in such selected cases.

**Figure1:** Follow up at 3 years of age

**Figure 1:** Follow up at 16 years of age
Conflicts of interest: None

References

7. Dhootpapeshwar Laghmalini vasant rasa 1 mg. https://www.google.com/search?q=laghumalini+vasant&oq=Laghumalini&aqs=chrome.1.69i69j0i263i512j0i67j0i512i3.8114j0j15&sourceid=chrome&ie=UTF-8