

## **“Fortis Cardiac Surgeons Perform Breakthrough Heart Surgery”**

*~Successfully implant India’s first ‘HEARTMATE II’ LVAD for heart failure~*

**For more than 1.5million patients in India who annually suffer from heart failure a breakthrough was announced by Fortis Malar Hospital, Chennai. The hospital has successfully performed India’s first HeartMate II LVAD (Left Ventricular Assist Device) implant on a 58 year old gentleman suffering from chronic heart failure.**

The successful surgery was performed by **Dr. K. R. Balakrishnan, Director - Cardiac Sciences, and the team of senior doctors comprising Dr. K. G. Suresh Rao (Head of Cardiac Anaesthesia & Cardiac Critical Care), Dr. Nandkishore Kapadia (Senior Consultant Cardiothoracic Surgeon), Dr. Ravi Kumar and Dr. Madan Mohan (Senior Consultant Interventional Cardiologists).**

The patient, Mr Rajasekar, 58 yrs old was diagnosed with coronary artery disease that led to a heart attack seven years ago. Over the years, despite medication the coronary artery disease continued to weaken his heart leading to heart blocks and left ventricular dysfunction. His heart function gradually declined, eventually dropping to 20% efficiency. As a result, he also experienced renal failure. His fragile condition made heart transplant, the only viable solution. However, the patient’s rare blood group made a donor search more difficult. It was then that the cardiac team at Fortis Malar took a decision to perform the HeartMate II LVAD implant surgery on him.

“Our aim was to give Mr Rajasekar a permanent solution to his heart failure problem through the implantation of an artificial assisted mechanical device called ‘Heart Mate II LVAD’. This is the most sophisticated technology available in the world and a permanent solution to heart failure. It is a destination therapy for patients who can’t find a donor or may not survive a transplant and offers many advantages. The machine has a 90% survival rate and can extend life for at-least 10 years. We are glad that Mr Rajasekar has recovered well and has become the first patient in India to undergo this procedure” said **Dr Balakrishnan, Director, Cardiac Sciences, Fortis Malar Hospital.**

LVAD devices have been used primarily as a bridge to a heart transplant till the U. S. Food and Drug Administration (FDA) approved them as a destination therapy. The device performs the function of the left ventricle of the heart and pumps the blood when the heart is too weak to do so on its own. Former US Vice President Dick Cheney is amongst the many patients who have got longevity of life through this implant.

Heart failure is a major public health problem globally with significant morbidity and mortality despite maximal medical therapy. The 5 year survival is often less than 50 %, and in patients with severe symptomatic heart failure, 2 year survival can be as low as 10 % and in several instances the prognosis is worse than cancer. The burden of Heart Failure in India appears high, and estimates of prevalence range from 3-4 million. However, there is a lack of reliable data due to inadequate surveillance systems. With the increase of cardiovascular diseases and ageing population in our country, the burden of heart failure is likely to be higher in comparison to the western population. Therefore, there is an urgent need to have centres equipped with technology & expertise to treat severe heart failure. This destination therapy can serve as a boon to many who are suffering from severe heart failure and cannot undergo transplantation.

“We are proud to be at the leading edge of treating cardiac disorders in the country and working with our talented cardiac teams in bringing new generation advancements to our patients. The implant procedure has the potential for widespread application in our country. It reaffirms our commitment to evolve life saving Cardiac surgery at our hospitals in India” **said Mr Aditya Vij, Chief Executive Officer, Fortis Healthcare, India.**

This technology has wide spread utility as a life saver. Apart from the apparent advantage of not having to wait for a suitable donor, there are several advantages to using an artificial implant. For instance, unlike cadaver transplants that require the intake of immuno-suppressants, to facilitate organ acceptance, patients with the implanted device need take only one simple blood thinning medicine. to ensure the free flow of blood. Immuno suppressants inhibit the functioning of the immune system and as a consequence increase the risk of contracting infection. Another noteworthy advantage of the artificial implant is that the device can be removed if the left ventricle recovers in due course of time. Furthermore, as in this case, a patient with a rare blood group can also benefit from the implant as the same device is inter-operable with all blood groupings.

### **Patient Speak**

Says **Mr. Rajasekar** , *“Before coming to Fortis Malar, I never thought I would live long. But now I will not just live, but live the way I want, thanks to the doctors at the hospital. And I am glad to learn that I am the first heart patient in India on whom the HeartMate II LVAD surgery has been performed. My only advice to heart patients across the country is not to lose hope.*

*Medical science has today crossed unimaginable frontiers, and today I proudly stand as a live proof of this fact. Fortis Malar has shown the way.”*

## **HeartMate II LVAD**

LVAD (Left Ventricular Assist Device) is a mechanical device that circulates blood throughout the body when the heart is too weak to pump blood on its own. It is sometimes called a ‘heart pump’ or ‘VAD’. HeartMate II is a miniaturized implantable LVAD that represents a breakthrough in medical technology and has rapidly become the most widely used device of its kind in the world.

HeartMate II does not involve the Replacement of the patient’s native heart which is not removed. HeartMate II attaches to the heart and is designed to assist, or rather take over, the pumping function of the patient’s left ventricle, which is the main pumping chamber of the heart. It provides continuous flow of blood without a pulse. The device is placed just below the diaphragm in the abdomen. It is attached to the left ventricle and the aorta, the main artery that carries oxygenated blood from the left ventricle to the entire body. An external, wearable system that includes a small controller and two batteries is attached by an external driveline. The wearable system is either worn under or on top of clothing.

HeartMate II is designed to restore blood flow throughout the body, enabling the patient to breathe more easily and feel less fatigued. The patient’s organs receive more blood than they did before receiving the LVAD, and this likely improves their organ function. After receiving an LVAD, patients generally feel more energetic and are able to resume normal activities that they were unable to do prior to receiving the device.

Because patients are in a severe stage of heart failure before receiving the device, they are much debilitated and typically very limited in terms of activity level. After receiving HeartMate II, the majority of patients can return to their favourite daily activities, with the primary limitation being water immersion. Many patients are able to return to work and resume hobbies that they haven’t been able to do for years.

## **About Fortis Healthcare Limited**

Fortis Healthcare Limited is a leading, integrated healthcare delivery provider in Asia. The healthcare verticals of the company span diagnostics, primary care, day care specialty and hospitals, with an asset base in 11 countries, many of which represent the fastest-growing healthcare delivery markets in the world. Currently, the company operates its healthcare delivery

network in Australia, Canada, UAE, Hong Kong, India, Mauritius, Nepal, New Zealand, Singapore, Sri Lanka and Vietnam with 76 hospitals, over 12,000 beds, over 600 primary care centres, 194 day care specialty centres, over 240 diagnostic centres and a talent pool of over 23,000 people. Fortis Healthcare is driven by the vision of becoming a global leader in the integrated healthcare delivery space and the larger purpose of saving and enriching lives through clinical excellence.

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