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# Aster CMI performs one-of-a-kind liver transplant in India

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**Conducted by the Integrated Liver Care Team at Aster CMI Hospital, this technology, provided by OrganOx Metra UK, opens tremendous potential to improve liver transplant success rates across India.**


53-year-old Mr. Ashwath ST became the first person in Asia to receive a liver transplant using specialised technology to preserve and revitalise the donated organ. Mr Ashwath had been suffering from end stage liver disease and had been waiting for a transplant for several months. His wife saidOur entire family had been evaluated but there were no suitable matching donors. Our only hope was getting an organ from a deceased donor. However, he was very sick and had multiple admissions for infection and bleeding. The family had almost lost hope when they got a call that there may be a suitable donor. However, an assessment of the liver revealed that it may contain 50% fat.

Luckily for Mr Ashwath, a new way of preserving livers was available in India in the form of the OrganOx Metra (normothermic machine perfusion). In doing so, he became the first recipient of a preserved liver using this new technology in Asia.

The transplant was carried out at Aster CMI Hospital, Bengaluru. The procedure took almost 18 hours. First the organ was retrieved from the donor. This was then prepared and placed on the machine. The machine monitored several parameters related to the liver on a real time basis which allowed the transplant surgeons to assess the liver function before transplant. The procedure was witnessed by several of the country's leading transplant surgeons. Mr Ashwath's operation started after the organ had been assessed and function confirmed. The transplanted liver worked almost immediately after the procedure. Mr Ashwath had a smooth recovery and was discharged home in less than two weeks.

The OrganOx metra device brought to India by Duraent Lifesciences, a Hyderabad based healthcare technology company, speaking on the occasion, Mr. Subhit Kumar, CEO Duraent Lifesciences, said, "We are proud to have delivered this technology to India in association with our European partners at OrganOx Metra. The device has many features apt for the challenges facing the Indian liver transplant ecosystem like time-critical access to donor livers and maintaining organ quality. It is our aim to ensure that every patient and hospital in India will have access to our technology soon. I congratulate the Integrated Liver Care team at Aster CMI on the first successful implementation in India."

There are insufficient numbers of deceased donations available to meet waiting list demands. In India, many patients die before they could benefit from a life-saving transplant. Some organs cannot be utilised because donations occur in small cities and the organs cannot be reliably and safely transported to transplant centers in time. Equally some donated livers may come from older donors or may have fat (fatty liver) which may not function well after the retrieval.

The solution may come from the way in which organs are preserved before transplantation. For the past 50 years, the accepted way to preserve organs after donation is to put them in a specialised fluid in an ice box. This is very different from the way organs function in the body. A new machine, OrganOx Metra has created a system that allows blood to circulate through the liver. When the organ is in a device that mimics the body, doctors can see it taking in blood and letting out bile, and can better tell how it might work in a patient. Using this technology, it is possible to transport organs from different regions while maintaining function. OrganOx Metra technology has only been available in Europe and the US so far, and this is the first time it has been used in Asia.

Dr Sonal Asthana, Senior Hepatobiliary and Transplant Surgeon said, “This technology will change the way we preserve organs and allow us to revive the organs before transplantation to ensure better function. Also organs which are donated in far off parts of the country can now be transported to transplant centers and utilised safely.”

Dr Rajiv Lochan said, “Current preservation methods do not allow functional assessment of organs before transplantation. In Mr Ashwath’s case it was also important to reduce the storage time to a minimum. The new technology allows for both these functions to occur and better use of donated liver grafts for transplantation. In addition, these livers can be treated to make them better while on the machine.” Liver transplants are complicated procedures and India faces nearly 20-30% of donor rejection rates due to poor quality of preservation and lack of timely access. The current liver donor numbers required annually in India is as high as 9-10 thousand, with donor numbers significantly lower. Duraent seeks to address this disparity and elevate India to a position of global leadership for liver transplants.