

# 21-year-old gets new hands through avante-garde surgery

Jul 29, 2016, 06.21 PM IST

**K**OCHI: The Kochi-based Amrita Institute of Medical Sciences conducted an elbow-level double hand transplant on a 21-year-old youth, Jith Kumar Saji, who lost both his forearms in 2013 due to electrical burns. This is the third double-hand transplant at the hospital.

Jith, the son of a mason hailing from a small village in Kannur, used to work as a light-and-sound assistant with a local event management group. While at work in August 2013, he fell on live high-tension electric wires when the tent under which he was working suddenly collapsed. He sustained severe burns on both his arms. He was rushed to the hospital unconscious, but his hands couldn't be saved and had to be amputated at the elbow.

For Jith's double-forearm transplant, Dr. Subramania Iyer, HOD, Plastic and Reconstructive Surgery, AIMS, led a team of 25 surgeons and a 12-member anesthetic team in a marathon surgery that lasted 14 hours. Dr. Iyer explained: "This surgery was technically much more complicated than the previous two hand transplants at Amrita Hospital. For hand transplants above the wrist, the tendons are still connected to each other. But in an elbow-level transplant, these connections have to be made to the muscle mass. Identification, tagging and connecting the nerves, tendons and arteries are very challenging. That is why forearm transplants have been attempted only a few times in the world."

The donor was a 24-year-old youth Raison Sunny who was declared brain dead after a road accident. The harvested hands were brought to Amrita Hospital from 30 km away in Angamaly, in a highly coordinated effort. "It was essential not to lose any time. Since the transplant involved large quantity of muscles, rejoining them to the recipient's body and reestablishing blood supply had to be much quicker, compared to the earlier two hand transplants done by us. The hands after harvesting from the donor were covered in ice-containing wrappers several times to reduce their metabolism, and rushed to Amrita Hospital in an

ambulance," said Dr. Subramania Iyer.

Jith spent three weeks in the transplant ICU after the surgery and is now fit to be discharged. He has been undergoing physiotherapy and can use both his elbows. He is even able to eat with the support of special splints. Jith would need to undergo intensive physiotherapy and rehabilitation exercises for at least the next two years for his hand function to return fully. In addition, he will have to take life-long immunosuppressant medications to prevent rejection of the transplanted hands.

Since Jith is from an economically disadvantaged background, several individual benefactors and philanthropists from Kerala pooled in resources to fund his surgery.