

Colour change in India's hand transplant recipient intrigues surgeons

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Shreya Siddanagaowda's arms have changed colour, matching her skin tone. (File Photo)

KOCHI/MUMBAI :

NEARLY three years after her double hand transplant from a male donor in Asia's first such surgery, Shreya Siddanagaowda's arms have changed colour, matching her skin tone with doctors saying they have come across two other such cases and it is difficult to give a scientific explanation for the phenomenon. Shreya, who underwent a marathon 13-hour long inter-gender double hand surgery at the Amrita Institute of Medical Sciences here at Kochi in 2017, had said the transplanted hands of the brain dead man had lost some of its weight and started to look more like a natural fit to her.

The donor was Sachin, a 20-year-old B-Com final year student of Rajagiri College in Ernakulam, who was declared brain dead after suffering a fatal head injury in a motorcycle accident. His parents had agreed to donate his hands and other organs. Dr K Subramania Iyer Head of Department, Head & Neck Surgery, Amrita School of Medicine, who had led a 36-member team of doctors, including 20 surgeons, for the transplant, told PTI there was no way to ascertain if the colour change could have happened due to the influence of female hormones.

“The female hormones have no role in skin pigmentation control. It is controlled by melanin, which in turn, is controlled by genetic factors as well as the Melanocyte Stimulating Hormone (MCH) secreted by the brain. It may be that the pigmentation changes could be due to altered MSH level,” Iyer said when asked about the colour change.

The doctor recalled that there had been a colour change in the hands of Abdul Rahim, the Afghan military captain from Kandahar who underwent transplant surgery in their hospital in 2015 under his leadership. “We have done five bilateral and one unilateral transplants. We noted colour change in the hands of two patients, both of whom were fairer than the donor hands. We couldn’t find any scientific explanation for that. It was an interesting finding... We had discussions and looked at literature about the same, but no definite reports of similar nature had been done in the past,” he said. The doctor said activity returning to such transplants was generally equal or better than normal hand replants. Many a time, replants were done in severely traumatised hands, whereas transplants are carried out in a much more cleaner environment.