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With A Skin Bank & Hi-Tech Device, Will Mum Fare Better

Doctors can now take MRIs during surgery

New skin bank will store tissue for three years

Pratibha Masand | TNN

Mumbai: Twenty-seven-year-old Ajay Mehra (name changed) recently underwent a brain operation for epilepsy. What made his surgery unique was that even as he was being operated upon, doctors sought the help of an MRI machine to confirm that they were on the right path. The scan showed exactly how much needed to be worked on: an affected area—barely a few mm long—was still left behind.


Welcome to the age of hi-tech assisted surgeries. Even a few years ago, an MRI scan while the patient is at the OT was unheard of. In May, Kokilaben Ambani Hospital in Andheri (W) installed this new system, called the intraoperative MRI system (IMRIS). So far, the advanced technology has been used on nine patients, undergoing neurosurgery.

"In this system, we have three adjacent rooms divided by automatic doors. The middle room has the MRI machine and the other rooms are used as OTs for neurosurgeries. So while a surgery is on, if the doctor wants to be sure that, for example, no tumour is left behind, he/she can perform the MRI on the patient and continue with the operation," said Dr Bhaskar Rao, neurosurgeon at Kokilaben Hospital.

Dr Anandh Balasubramaniam, another neurosurgeon at the hospital, said during surgery, the brain might let out water, which might render pre-surgery MRI scans inaccurate. "Earlier, doctors would perform surgeries relying only on their skills. Many a time, the patient would come back with a tumour or a fit of epilepsy and would have to go for another surgery. But now, before getting over with the surgery, we can do the MRI and be sure about its success," said Rao.

But some are not so hopeful. "An MRI only gives a picture of the brain. But the intraoperative ultrasound machines show real-time images, and that may leave IMRIS behind," said Dr Ravi Ramakant, head of radiology, KEM Hospital.

What is an Intraoperative MRI



Intraoperative MRI is the procedure when the imaging machine is used inside an OT to scan pictures of the patient's organs during surgery. This helps precision in an operation.

Use | The intraoperative MRI machine is installed adjacent to the OT. The device's magnet moves into the OT without disturbing the patient and scans the images of the organs.

Benefit | The machine helps a surgeon to precisely locate a tumour and identify areas to be avoided. It aids in minimising the damage to healthy tissues.

TIMES NEWS NETWORK

Mumbai: Blogs may seem an unusual medium to market the cause of skin donation, but as the country's most sophisticated skin bank opens on Saturday, this is exactly what its proponents will do.

"The hi-tech skin bank can store tissues up to three years, as compared to the current four-week period," said Dr S Keswani, the plastic surgeon, who along with the Rotary Club of Mumbai North, is setting up the 40-lakh facility at National Burns Hospital in Airoli.

Given the poor score for skin donation in the city present—an average of eight every month—Keswani feels the need to get together with a social marketing firm to popularise the concept. "People need to know that there are two banks in Mumbai (civic-run Sion Hospital at the Airoli hospital). We need to create awareness through campaigns and blogs," Keswani added.

Considering that one burn victim needs two donations, the average monthly count will barely help four patients. "But Mumbai needs

Donating skin

- A skin transplant team, in a specialised burns ambulance, will reach the home of the deceased within two hours
- The skin will be harvested from thighs and back in about 45 minutes

Use | Donated skin can be used to temporarily cover a burnt area of a patient, awaiting grafting procedures. The donated skin functions as the patient's own skin for a short time, reducing pain and decreasing the risk of infection.

Source | Transplant organs come from two sources: People who have died suddenly (cadaveric donors) and live donors.



five donations daily and about 2,000 a year to benefit the 1,000 odd patients who need skin grafting," said the doctor.

The new bank has been set up in collaboration with the Euro Skin Bank in Beverwijk, Netherlands—the busiest facility in the world that exports tissues across the world. The bank will have a biosafety cabinet, sealer and walk-in fridge among other features. Skin from a cadaver will be stored in glycerol at a near-zero temperature. "The idea is to transport skin to other cities in near future." Also on the anvil, are banks in Pune and Nashik.

MIRACLES IN MEDICINE WORLD

For details, call Sion Hospital (24076361) or the National Burns Centre, Airoli (27606680)