

# Heart & a little thought

Heart transplants are rare and the hindrances are many in finding donors. Sanchita Sharma brings stories of how two persons got a fresh lease of life at AIIMS

## The 27<sup>th</sup> new life at AIIMS

**PRAVIN SINGH, 25**, became the 27<sup>th</sup> person to undergo a successful heart transplant at the All India Institute of Medical Sciences (AIIMS). He underwent the surgery on April 3.

"Pravin is lucky. He got a donor within a month of diagnosis. Most people who need a heart transplant die waiting for a donor," said Dr. Balram Airan, professor of cardiothoracic and vascular surgery at AIIMS, who led the team that did the surgery.

Doctors at AIIMS, which is the only centre doing heart transplants in northern India, say finding donors is their biggest problem. "We have the expertise and there are many competent surgeons to do transplants but donor shortage has been a setback. At times, the few donors we get don't always have hearts healthy enough for transplant, making heart transplantation rare," said Airan.

Surgeons at AIIMS have done the largest number of heart transplants in the country and also more than the rest of the centre in Chennai, Hyderabad and Kochi put together. "The heart transplant programme at AIIMS has had excellent results, with recipient Devi Ram healthy after 14 years



**HOPE FLOATS** Pravin Singh, who underwent a heart transplant surgery at AIIMS on April 3, with his wife.

and Mahavir after 12 years. Preeti Unhale, who now works with AIIMS, is also doing very well 7 years after a transplant," said Dr. Airan, who was part of Dr. P Venugopal's team when he did India's first heart transplant on August 3, 1994.

Praveen Singh's surgery

**We have the expertise but donor shortage has been a setback. At times, the few donors we get don't always have hearts healthy enough for transplant, making cases rare.**

**DR. BALRAM AIRAN**, Professor, cardiothoracic and vascular surgery at AIIMS

Began at 8 pm and got over at 1 am. The procedures involved over two-dozen surgeons and supporting staff.

"The donor was a road accident victim whose family also donated his kidneys, pancreas, cornea and liver. All the donated organs were retrieved and implanted at AIIMS except the liver, which was sent to the Army Research & Referral Hospital for transplantation. Even in death, the donor saved and changed many lives," said Dr. Aarti Vij, director, Organ Retrieval and Banking Organisation at AIIMS. Sanchita.sharma@hindustantimes.com

- ORGAN DONATIONS AT AIIMS IN 2008**
- 19 donors
  - 17 cadaver donors
  - 2 brain death donors
  - 7 whole body donations to anatomy department
  - 20 corneas
  - 6 hearts for heart valves retrieval
  - 2 heart
  - 4 kidneys
  - 2 livers (send to Army research and Referral)

**REASONS FOR REFUSAL**

- Non-acceptance of brain death as final because the heart continues to beat even though the brain and brainstem have stopped working
- State of shock at sudden death of a loved one
- Religious beliefs
- Medico-legal delays, such as post mortem
- Delays in taking the body home because of retrieval surgery
- Fear of disfigurement

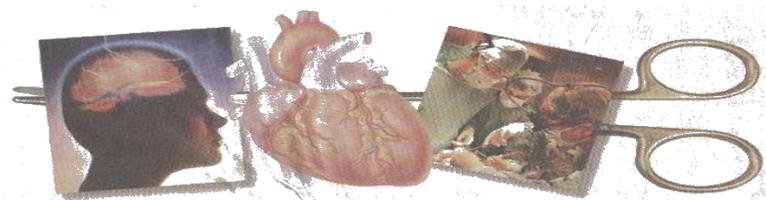
- logy & cardiothoracic surgery for hearts
- Departments of GI Surgery and gastroenterology for pancreas, liver
- Departments of surgery/urology for kidney
- Department of nephrology for kidney transplant
- Department of ophthalmology for eyes
- Department of orthopedics for bones
- Police and forensic

**DEPTS INVOLVED**

- Treating physicians and neuro-surgeons who confirm brain death
- Organ Retrieval and Banking Organisation
- Departments of cardio-

**ALL ABOUT GIVING**

- One in three people requested agree to organ donation
- In 2008, two of the four families of brain-dead patients agreed to donating organs



**Heart transplant FAQs**

**WHEN IS A TRANSPLANT NEEDED**  
When the heart is irreversibly damaged by long-lasting heart disease or viral infection and cannot be treated with medication.

**WHO NEEDS IT?**  
People with long-term heart failure, heart muscle disease (cardiomyopathy), damage because of coronary artery disease or multiple heart attacks, heart valve disease with congestive heart failure, congenital heart disorders (present at birth) and life-threatening abnormal heart beats that can't be treated by any other medical or surgical means.

**HOW IS IT DONE?**  
The heart is first retrieved from the donor. It takes 30-45 minutes. The implantation takes three to four hours. The recipient is put under general anaesthesia and a cut is made through the breastbone. The heart is stopped and the patient's blood is circulated through a heart-lung machine to oxygenate it. The diseased heart is removed and the healthy donor heart is stitched in place. The heart-lung machine is disconnected and the transplanted heart starts pumping blood.

**ORGANS THAT CAN BE RETRIEVED**

- CORNEA** (eyes) – maximum donation
- HEART**
- LIVER** – split liver transplants make it possible to help two people
- PANCREAS**
- KIDNEYS** – two recipients for each kidney
- BONES** – maximum donations