

10-month-old girl gets a new liver

RAJESH KUMAR
NEW DELHI, JAN 13

THE country's first-ever paediatric liver transplant has been performed on a 10-month-old baby girl at a corporate hospital here.

The marathon operation was performed by a team of experts on Sunday after the family of an accident victim, who was pronounced brain dead at the St. Stephen's Hospital on Saturday night, decided to donate her organs.

While the heart, kidneys and lungs were offered to patients awaiting transplants at the All India Institute of Medical Sciences (AIIMS), the liver was donated to the tiny patient who was struggling for her life due to a diseased liver at a joint-sector corporate hospital in south Delhi.

The AIIMS doctors were apparently unable to locate a compatible recipient for the liver.

Though several attempts to transplant an adult have been made, this is the first time that such a surgery has been performed on an infant in India, experts claim.

According to Dr Anupam Sibal and Dr Rajasekar, hepatologists and the transplant surgeon respectively who headed the expert team for the highly delicate surgery, a part of the adult organ was carefully dissected along with healthy blood vessels to make it compatible (in size) for the recipient. A child's liver measures only about 20 per cent of an adult's liver.

Though the new liver seems to be functioning well in the child's body, the transplant team is keeping their fingers firmly crossed as the liver transplant programme in the country has so far failed to take off. Even in cases involving adult patients, wherein whole liver is transplanted, the post-transplant survival of liver recipients has been

only a few days.

"The paediatric liver transplant is, therefore, highly sensitive as the process involved is much more delicate," Dr Rajasekar maintained.

At Apollo Hospital in Chennai and, more recently, at AIIMS in New Delhi, adult recipients had died within a few days of the transplant operation.

The child recipient of the liver, one of the four minor patients awaiting a liver transplant at the hospital's transplant clinic, was suffering from a congenital disease called 'biliary atresia', in which the bile produced in the liver can't drain out.

The accumulation of fluid, which plays a crucial role in body's metabolic functions, inside the intestines leads an irreversible damage of the vital organ.

"The disease has no cure. Though periodical draining of bile is successful in 10 per cent of such

cases, a liver transplant is the only option for the rest," Dr Sibal said, adding that 'biliary atresia' was the leading condition requiring a paediatric liver transplant the world over. In India, one in every 1,200 babies is born with this life-threatening congenital problem.

Incidentally, a healthy blood relative can also donate a part of his liver for its transplantation in a child recipient. According to Dr Rajasekar, the human liver is the only organ which can regrow, much like a lizard's tail, after a part of it is carefully dissected.

"A close blood relative can easily donate 20 per cent of his or her liver without endangering own life and the liver can eventually regrow to its normal size," he maintained. The doctors are hoping that the first attempt on a child could break the "jinx" to pave way for a successful liver transplant programme in the country.

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14 JANUARY 1998

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Infant's liver transplanted for 1st time

New Delhi, Jan. 13: The Subcontinent's first-ever paediatric liver transplant has been successfully performed at the Indraprastha Apollo Hospital here, a hospital press release said here on Tuesday.

The transplant was done in the early hours of Sunday on a 10-month-old baby whose identity has not been disclosed by the hospital authorities.

The baby's condition was stable but critical and the next 72 hours would be crucial, according to Dr J.K. Sachdeva, the hospital's director medical services.

The baby was suffering from liver failure due to biliary atresia — a condition in which the bile ducts, draining bile from the liver, are malformed or absent, he said.

"Her only hope was a liver transplant," Dr Sachdeva said while claiming that it was the first ever liver transplant in a baby in the Subcontinent. He thanked AIIMS and St. Stephens Hospital for providing the donor. (PTI)

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First liver transplant conducted at Apollo

By A Staff Reporter

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The operation was conducted during the early hours on Sunday.

The baby had liver failure due to biliary atresia — a condition in which bile ducts draining bile from the liver are malformed or absent.

Her only hope was a liver transplant, the hospital said.

According to the liver transplant team on Wednesday, the baby's condition is stable but critical. The next 48 hours are crucial.

The team expressed gratitude to the All India Institute of Medical Sciences (AIIMS) and St Stephen's hospital for making the donor available, and "thus making the first paediatric liver transplant possible."

This is the country's sixth attempt at a liver transplant. The earlier five attempts proved failures, or partial successes, because of rejection or infection of the transplanted liver. Patients did not survive more than a few weeks.

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Liver transplant performed on ten-month-old

NEW DELHI, Jan. 13 (HTC)
In the first operation of its kind in the country, doctors at the Indraprastha Apollo Hospital have performed a liver transplant in a 10-month-old child. The operation was successfully performed on Sunday.

Doctors at the hospital said that liver transplant was the only hope as the child was suffering from biliary atresia, a condition in which the bile ducts draining bile from the liver are malformed or are absent.

The doctors said that the baby's condition was critical, but stable. The next 72 hours will be crucial for the child, the doctors informed.

The successful liver transplant has come as a boost for the liver transplant doctors.

Successful liver transplant at Apollo

By Kalpana Jain

The Times of India News Service

NEW DELHI: Apollo Hospital in Delhi has conducted its first successful liver transplant — and only the second in the country. The 42-year-old patient, Bharat Bhushan, has survived the crucial one-month period following a transplant.

The first liver transplant was also done by Apollo Hospital in Chennai recently. Several attempts by premier institutions in the past had ended in failure.

Mr Bhushan is back in his home and leading a normal life. The liver was obtained from a brain-dead person at Apollo itself, and a team led by Dr M R Rajasekar and Dr A S Soin transplanted the liver. The surgery lasted about seven hours.

The patient runs a water cooling plant. Speaking to this correspondent, he said he hoped to get back to work in two months' time. He urged people to donate organs so that oth-

ers too could benefit.

The Apollo transplant team surgeons say the operation has been a success. Dr Rajasekar said they do not expect any major complications in this case now. "Though for another six months to a year, the patient may show some mild episodes of rejection of the transplanted organ. But that can be treated."

The cost of the surgery is prohibitive — Rs 10 to 15 lakh. The post-operation cost of drugs used for suppressing reactions from the body's natural immune system to the transplanted organ, is also high. But doctors say that for those who were earlier going abroad for the same treatment, it is cheap, being only 15 per cent of the cost abroad. Liver transplantation in the United States can cost more than \$ 250,000, they say.

Alcoholism and infections from hepatitis B and C virus are mainly responsible for liver diseases in the country.

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HEALTH

NEW HOPE IN TRANSPLANTS

Two Delhi doctors set up a foundation to promote organ donation

SHE never had a chance. Born with a life-threatening liver disorder, the seven-month-old baby needed a liver transplant quickly. However, without a centralised organ registry tracking and matching liver donors and transplant patients, the parents had to wait till the baby was 10 months old before they chanced upon a possible donor—an accident victim.

It was too late. Although the baby underwent a transplant operation at Delhi's Indraprastha Apollo Hospital she survived for only 11 days.

Babies born with a liver disorder should get a transplant organ within the first two months. That can happen only if the country has a systematic donor registry system in place.

Unfortunately, there is none at the moment.

The baby, the first patient to receive a liver transplant in the country, was referred to Dr Anupam Sibal, a specialist in paediatrics and hepatology, when she was seven months old. He found that the baby's liver was malfunctioning—a condition known as *biliary atresia*.

It meant that the duct from the liver to the intestine was absent and, therefore, the bile could not be drained from the liver.

Sibal contacted Dr Magaral R. Rajsekhar, an expert in abdominal multi-organ transplantation. Having performed over 40 transplant operations at the University of Chicago, Rajsekhar's experience was valuable. He had joined the Indraprastha Apollo Hospital in August 1996 and had immediately 'hit it off' with Sibal.

The baby was already 10 months old and the doctors realised that it was too late for a transplant. The youngest baby to undergo a transplant was only five days old when she was operated upon at London's Kings College.

In January a road accident victim, a nurse who had pledged her organs, died. Dr Venugopal's team

Dr Rajsekhar harvested the adult liver in AIIMS. He preserved it in the 'University of Wisconsin solution' and transferred it to Apollo hospital.

While Rajsekhar had the liver dissected and prepared for transplanting, the baby was readied for the long surgery. The diseased liver of the baby was removed. It was a challenging operation because the liver had to be stripped from the vena cava, a vein that drains blood from the upper and lower body into the heart.

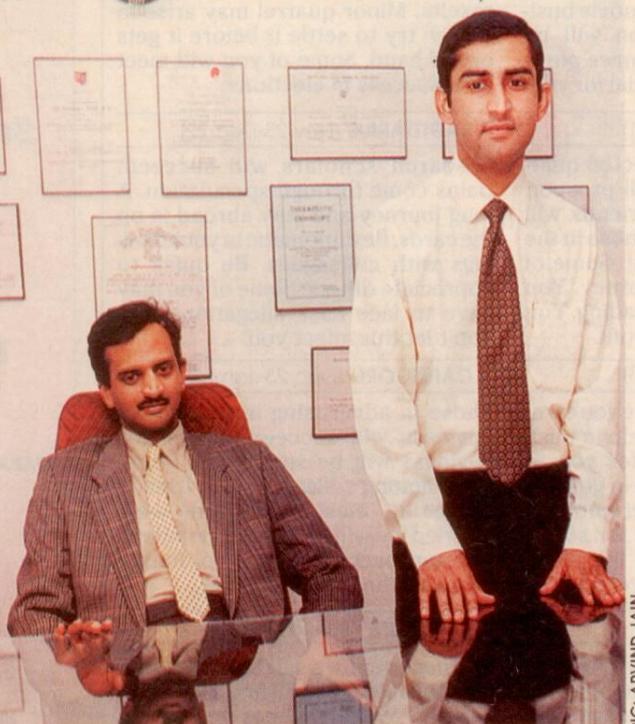
Only a segment of the adult liver was being transplanted into the baby, and the vena cava had to be kept in continuity. This part of the operation was carried out successfully.

What the doctors were trying to do was transplant a healthy liver and join the intestine to the liver directly—a procedure called Kasai operation, named after a Japanese doctor who pioneered the technique.

The operation took 12 hours and involved 12 doctors and 10 assistants. Initially, the transplanted liver in the baby started to function. After nine days it reached a plateau and then it started to sink. Another donor could not be found and she died on the eleventh day.

The chances of survival after a liver transplant is 85 per cent and the procedure has been standardised. Yet, doctors say that of the babies born with a liver disorder and on whom transplantation is performed only 10 per cent have a good long-term prognosis.

The absence of a coordinated organ registry system takes away many lives which could have been



A step in the right direction: Sibal and Rajsekhar have set up a foundation to help raise funds for liver transplants and generate awareness

at the All-India Institute of Medical Sciences (AIIMS) picked up the victim from the St. Stephens hospital and informed Dr Rajsekhar.

Sibal and Rajsekhar, in turn, informed the parents. They were told that the accident victim had the same blood group as the baby, which convinced them to go ahead with the transplant.

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India's new 10-year

Dr. Sibal, who was in contact with the Ministry of Public Health Conference and Sanjay at the time, a year after he went the the *Hindu* that Sanjay would have thousands of children in similar transplant cases. Stating that a number of cases were being carried in the country at that time, he said it needed some form of regulation. The surgeon general of the liver and the kidney transplanted after 900 cases, he said, gave new chances of life to the only option was a liver transplant. As we were talking, the transplant took place. The Apollo team had come up with an innovative technique called the "liver transplantation".

liver transplant performed at the age of 11. "It's a success story. One could say that the boy is now back to normal life. He is running around, he is doing his best on an object like a bicycle," he said.

2:10:98 **Transplant gives new lease of life to two-year-old**

By Our Special Correspondent

CHENNAI, OCT. 2. The parents of the two- and-a-half year old Sanjay Kandasamy had lost hope on their son being able to lead a normal life because he was suffering from a peculiar disease — "biliary atresia", a condition in which the liver and the intestine are not connected. And the symptoms were jaundice and pale coloured stools.

Perturbed by these conditions, Sanjay's father, Mr. Kandasamy, a businessman from Kancheepuram, with the help of a doctor friend in Chennai, got in touch with Dr. Anupam Sibal, a consultant paediatric gastroenterologist and hepatologist in New Delhi.

A ray of hope then came in the form of a paediatric split liver transplant, performed by a team of doctors from the New Delhi Indraprastha Apollo Hospital.

Dr. Sibal, who is here in connection with the VII Indian Academy of Paediatrics Gastro Conference and who examined Sanjay at the Apollo Hospital here, a year after the boy underwent the transplant, told *The Hindu* that the success story of Sanjay would provide hope to thousands of children who needed similar transplants.

Stating that about 1,000 such cases were being reported every year in the country, he stressed that it needed serious medical attention. The surgery to connect the liver and the intestine if performed after 90 days of birth had low chances of success and the only option would be a liver transplant. As very few organ donations took place in the country, the Apollo team had decided to use an innovative technique called the "living related transplantation".

Liver transplanted from father to son

By Our Staff Reporter

NEW DELHI, Dec. 5.

A father and his son have created medical history. A portion of Mr. A. Kandasamy's — of Kanchipuram in Tamil Nadu — liver has been transplanted into his 18-month-old son. Both father and son are doing well.

For doctors in the country, this operation is a major breakthrough in transplant surgery. Doctors claim it is India's first living-related liver transplant.

It was performed at the Indraprastha Apollo Hospital here by a transplant team comprising surgeons, Dr. M. R. Rajasekar and Dr. A. K. Soin and pediatric hepatologist, Dr. A. Sibal on November 15.

The procedure involved major surgery on the father — a portion of the liver was removed and placed in preservative solution at 4 degrees.

Within an hour, a segment of the donor liver was transplanted into the child after removal of the diseased organ. The whole operation took around nine hours.

The three surgeons addressed a press conference in the Capital on Saturday. Sanjay Kandasamy, an 18-month-old suffering from a congenital disorder of the bile ducts called biliary atresia, was admitted from Kanchipuram for treatment of advanced liver disease last month.

The child was diagnosed to have developed this condition when he was two months old and he was operated upon at Chennai.

Soon after this operation, the child showed signs of recovering from jaundice. However, six months later, his jaundice worsened and he was diagnosed with advanced liver disease.

Subsequently, as his disease continued to ad-



Eighteen-month-old Sanjay Kandasamy after the liver transplant operation. The operation was performed on November 15 at the Indraprastha Apollo Hospital in Delhi. The donor was Sanjay's father, Mr. A. Kandasamy (left) of Kanchipuram. The picture shows the team of doctors who performed the operation and Sanjay's mother.

vance and his jaundice intensified, he lost weight and became irritable. As hepatologist and nutrition specialist, it was Dr. A. Sibal who

started working on the child once he was admitted to the ICU at Apollo Hospital. As he prepared for surgery, his father was also asked if he

could donate his liver. After he gave his consent, pre-operative tests were performed on the child as well as the father. Blood products were prepared and thorough trial checks carried out.

Dr. Rajasekar's account of the operation after the father was anaesthetised on November 15: "Over the next five hours, I and Dr. Soin removed 25 per cent of his liver successfully without any need for blood transfusion.

Next, the baby was anaesthetised and his diseased liver removed in an operation lasting another five hours. We took another four hours to transplant the organ".

For the doctors, it was a moment of great pride when they found that once the blood vessels were connected, excellent blood flow was established through the new liver.

The child's body had accepted the new liver. "After 14 days of intensive care, the child is now eating and is in good health," Dr. Soin said.

Mr. Kandasamy who was discharged from the hospital eight days after his operation, was also present at Saturday's press conference along with his wife, A. Tilaka.

"It was a bold decision for me but I put my faith in God and hope in the doctors who assured me that the child would live if his liver was replaced," Mr. Kandasamy told presspersons.

The first attempt at living-related liver transplantation was made in 1989 in Brazil and the first successful liver transplant in the world was carried out at the University of Chicago Hospital, US, in the same year.

As of today, there are only six to seven specialised centres in the world where this complex procedure is undertaken.