

Printed from

**THE TIMES OF INDIA**

# Chennai: Boy gets transplant of bowel, abdomen wall

TNN | Mar 12, 2020, 05.42 AM IST




CHENNAI: Chinni Krishna is ecstatic that he can eat a full meal and step out of his house for a saunter. “I am so happy I can do this,” the 17-year-old told reporters on Wednesday, three weeks after transplant surgeons replaced his ultra-short bowel with a healthy organ from another teenager who died in a road accident.

In March 2019, Chinni was hospitalised with sudden abdominal pain, and doctors removed most of his small intestine retaining just 5cm of the organ (normal size is 6 metres). Doctors don’t know what triggered the acute mesenteric ischemia – a condition where there is sudden loss of blood supply to the small intestine. But the condition left the organ permanently damaged and a large portion of it was removed as a

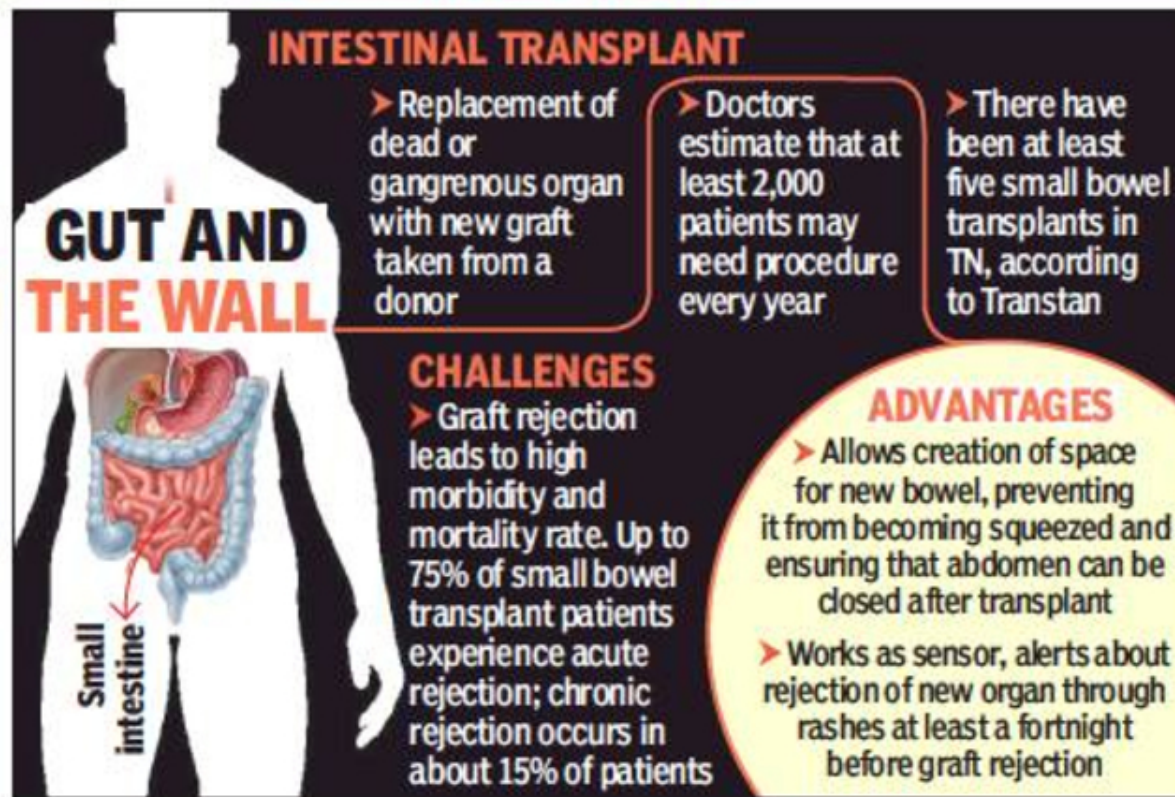
lifesaving procedure.

## FROM 5CM TO 6-METRE BOWEL

- In intestinal transplant, a dead or gangrenous organ is replaced with a new graft taken from a donor
- Procedure risky as 75% of small bowel transplantation patients experience acute rejection, and 15% patients suffer chronic rejection
- Combining abdominal transplant with bowel allows creation of adequate space for the new bowel, prevent it from becoming squeezed, and ensures that the abdomen can be closed properly after procedure. Possibility of rejection can also be minimized



Since then the teen has been fed intravenously and was mostly on a hospital bed. By the time, he was brought from Kuppam in Andhra Pradesh to Apollo Hospitals here, he had lost nearly 20kg, suffered severe muscle wastage and was malnourished. The small intestine aids in digestion and absorption of food. “He weighed just 30 kg when we saw him,” said paediatrician Dr J Shyamala.



Doctors knew before any further therapy, Chinni needed nutritional rehabilitation. Over the next nine months, nutritionists helped him regain 15kg. During the time, the hospital crowdsourced funds for his treatment as his family couldn't fund the procedures. "Once he gained about 15kg, we told him to stay at home but we continued to monitor his weight gain and lab reports," she said.

Patient gains more than 1.5kg weight, on immune suppression tablets

He suffered two episodes of infections and severe liver injury, which made bowel transplant inevitable.

"The call from the organ registry about a new organ came in February," said transplant surgeon M Senthil.

“When the donor’s family agreed to donate the abdominal wall along with the bowel, we were delighted,” he said. The organ came from an 18-year-old patient who was declared brain dead after a road accident.

Taking the abdominal wall from the same donor has two advantages, he said. First, doctors can avoid using poor quality native abdominal wall muscle and skin that has been weakened by multiple operations. “We won’t be able to close the patient properly with the weak inadequate covering,” he said.

Second, the newly transplanted abdominal wall serves as an advanced marker of organ rejection.

“In a kidney or liver transplant simple tests or scans may reveal rejection. But a patient with bowel transplant may need endoscopy and biopsy. The newly transplanted abdominal skin can change that,” said senior plastic surgeon Dr Ganapathy Krishnan.

If the patient’s immune system is working against the new organ, the skin of the abdominal wall will develop a rash at least 15 days prior to the small intestine getting affected, he said.

“It works like a visual canvas. It helps us stop graft rejections,” he said.

Senior visceral surgeon of the hospital Dr Anil Vaidya had done this surgery more than seven years ago in the UK.

The surgery isn’t that common here because getting abdominal wall is rare and it needs massive preparedness.

On Wednesday, a team of doctors said 17-year-old Chinni Krishna had a largely event-free post-surgery period.

In less than four days, he was started on solid food. “Chinni Krishna has gained more than 1.5kg body weight after surgery. He is on immune suppression pills but is doing well,” Vaidya said.