

Press release

This is about an unusual birth defect called **esophageal atresia** where continuity of food pipe is missing. The result is blind ending upper food pipe pouch ending above the clavicle and stomach is not connected to esophagus. It occurs one in 10000 births. The result is that the baby is not able to swallow the saliva or milk. Spillage of saliva into trachea is responsible for pneumonia and death. The established techniques for correction of this birth defect is described as – insertion of tube in the stomach by surgery for tube feeding and the upper blind end of the food pipe is exteriorized to skin to give way to saliva. Once baby is two years old and has gained weight the missing segment is bridged with segment of stomach or colon. But natural esophagus is missing in these cases for life long.

To overcome this problem Kimura from Japan in 1994 described a new technique of esophageal lengthening using tissue engineering technology and after 3 or 4 steps natural esophagus was elongated up to stomach and joined. Baby is benefitted with natural esophagus avoiding complications of replacement.

From India success with this technique is being reported for the first time from Pediatric Surgery department, KGMU. Details are under.

Patient Master D. Tiwari (name changed) from Sultanpur was born with disease of esophageal atresia, birth weight was 2.5kg

In 2012 in Pediatric Surgery KGMU 1st stage successful surgery done by **Prof. S.N. Kureel** with provision of feeding via tube in stomach and upper blind pouch esophagus was lengthened, beginning the Kimura technique.

In 2013 the food pipe was further lengthened using tissue engineering technology

In 2015 and 2017, further lengthening of the food pipe was done by using tissue engineering technology.

Final stage surgery was performed on **6th September 2018** by **Prof. S.N. Kureel** gaining full length of natural esophagus which was routed via thorax and joined to stomach. Patient has recovered and can now take semi-solid and solid meals like chocolate etc. without any difficulty.

Success with this technique is reported for the first time in India from Pediatric Surgery department, KGMU and in the world 19 cases are reported.

Surgical Team: Prof. S.N. Kureel, Dr. Archika Gupta, Dr. Vipul Bothara, Dr. Sunil Kanujia, Dr. Akhilesh Kumar

Anesthesia Team: Dr. Anita Malik, Dr. G.P. Singh, Dr. Sarita Singh

Nursing Team: Sister Vandana, Brother Sanjay