

《中国医生激活肝细胞治疗白内障》

In southern China's Guangzhou city, doctors have managed to activate stem cells in the eye to treat cataracts on children. These are the first successful cases of their kind in the world. Experts say the significance of the medical breakthrough is far beyond that.

3-year-old Kaikai is waiting in hospital for an eye exam. He was diagnosed with congenital cataract when he was six months old, and that is the no.1 cause of blindness in China. Two weeks after his diagnosis, Kaikai received surgery, and is recovering gradually.

"I take him here for a check up every three months. It's going well, I'm so relieved," Kaikai's father said.

The surgery, performed by doctor Liu Yizhi, was an unconventional one. Instead of removing the entire clouded lens and implanting an artificial one, Liu kept the main structure of the lens via a much tinier incision and made it regenerate.

"Artificial lens is not suitable for children under 2 years old, as it's too big for them and its size cannot change to adapt to children's growing eyes. Besides, implantation could bring complications particularly in children," Professor Liu Yizhi with Sun Yat-sen University's ZHongshan Ophthalmic Center said.

Like a gecko's broken tail that can regrow itself, doctors activated stem cells in the eye to grow a new lens. The surgery takes no more than one hour, but that's the result of 18 years' of research and trials by Doctor Liu and his colleagues.

The breakthrough did not come easy. Liu had been testing the procedure on rabbits and monkeys since 2000, leading up to his first surgery on a child just 3 year ago. He says except blood, this is the first time doctors succeed in making stem cells regenerate into a new organ.

"Treating cataracts is just a model, we hope such a technique can be developed and applied to other organs such as the liver, to make greater medical progress," Professor Liu said.

Kaikai is lucky, now doctors are working on conducting larger trials to treat more children like him.