

THE HEALING TOUCH

Giant leap with stem cells

Human stem cells used to cure vascular disease

Seoul: South Korean scientists said Monday they used human embryonic stem cells to treat mice suffering from a vascular disease, in an experiment that could lead to cures for strokes and other ailments.

The team, led by Pochon Cha University's Chung Hyung-Min and Kim Byung-Soo of Hanyang University, said the stem cells were differentiated into blood vessels that were grafted onto the animals afflicted with ischemia.

Ischemia is caused by a shortage of blood to a part of the body, stemming from the constriction of blood vessels. Of the 11 mice treated, four developed new vascular cells that fully revived the damaged limb, while four suffered from a relatively mild case of necrosis. Three lost their legs due to the cut-off of blood flow.

Necrosis is a disease leading to the death of tissue and bone.

The findings appeared in the latest online issue of *Circulation*, a journal published by the American Heart Association. They showed 10 other mice given alternative treatment failed to recover.

"The findings showed that in the case of animals, the use of stem cells helped save limbs," Chung told Yonhap news agency.

If further research is carried out, he said, it may help scientists create a wide range of blood vessels. The professor was quoted as saying that such developments could lead to cures for human strokes, myocardial infections and foot ulcerations caused by diabetes.

More detailed research will be carried out in the next few years to find ways to treat vascular cell-related diseases.

Meanwhile, the identification of a new marker is making it possible to track brain stem cells for the first time, American researchers said. The achievement is already opening doors to new research into depression, early childhood development and multiple sclerosis. AGENCIES