Exercise Helps Kids Recover After Brain Tumour Treatment

Sydney, Sep 12 (IANS) Exercise helps repair brain cells after radiation, particularly in children being treated for brain tumours, researchers say after clinical trials on mice. Exercise helped restore stem cell growth and improved behaviour in young mice after brain damage, engineered by a relevant dose of radiation. These results were also applicable to children, Auckland University researchers said.

Children undergoing radiation treatment often develop learning and memory problems later in life that may be associated with attention deficits.

These symptoms have been linked to radiation-induced damage, which kills both cancer cells and stem cells in the hippocampus, a region essential for proper memory function.

Andrew Naylor, previously at Sahlgrenska Academy in Gothenburg and now at Auckland University, had previously studied the effects of physical exercise on stem cells.

Together with Sahlgrenska Academy researchers Klas Blomgren, who has studied the consequences of irradiation on brain cells, and Georg Kuhn, a pioneer in the brain stem cell field, the group investigated whether physical training could counteract previously established damage to certain regions of the brain.

The group studied the effects of radiation on the behaviour of young mice, half of which were provided exercise wheels and half who were not.

The study demonstrated that irradiated mice showed increased motor activity and altered movement patterns that were normalised if they were allowed to exercise. Besides, the mouse brains contained 50 percent more stem cells than their non-exercising counterparts.

The research is published online in the Proceedings of the National Academy of Sciences Early Edition.