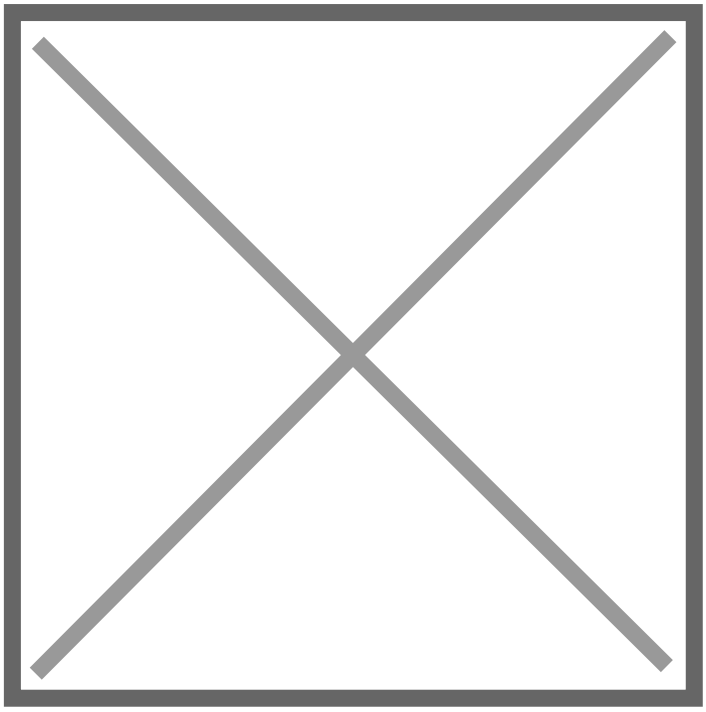
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Cardiac patients get stem cell therapy at AIIMS

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Stem cell therapy has become a reality in India. The All India In stitute of Medical Sciences (AIIMS) has successfully given stem cell treatment by 'injection method' to its cardiac patients.

The institute conducted the study under the leadership of P Venugopal, a renowned heart surgeon and AIIMS, director, from February 2003 to January 2005, where 35 cardiac patients were given stem cell therapy and were monitored at six, 12, and 18 month intervals. All the patients were brought in at a stage when their hearts were beyond bypass surgery and transplant was the only solution. During the course of the treatment, there were no mortalities and in fact after six months, 56 percent of the dead tissue area injected with stem cells showed improvement. After eighteen months, the improvement spread to about 64 percent of the necrotic tissue area. These stem cells, derived from the patient or donors, act as repair agents within the body, multiplying continuously to replenish other cells.

The procedure uses robotics to inject stem cells into the artery leading to the diseased organ, after blocking passage through the vein to prevent loss in transit, in patients. The regenerative cells are delivered to the affected area initiating the process of repair and regrowth of healthy cells. This reduces the disease burden in some while completely curing others.

Besides cardiac patients, the stem cell injection method can also be successfully used in patients with diabetes, neurological disorders, muscular dystrophy and cerebral palsy. With further refinement, even immune disorders and cancer can be treated with this stem cell procedure. Commenting about this achievement, the Union health and family welfare minister, Anbumani Ramadoss said, "The feat had placed AIIMS right at the top of the world's medicine map."

This achievement has brought new laurels to AIIMS, as this is a global first in stem cell medicine. AIIMS has now been notified as India's nodal center for conducting and coordinating stem cell research. The medical team can file for a patent as this procedure is one of its kind even though stem cell technology has been applied successfully in the UK, Korea and China, particularly in regenerating diseased cells. In fact, this treatment procedure is so new that there are no clear regulatory guidelines for carrying out stem cell transplants on heart patients undergoing bypass surgery. This has led to fears that soon this may lead to a number of private health centers claiming stem cell treatment for a wide range of diseases.