

Italian researchers develop heart-repair method with adult stem cells

VATICAN CITY - Italian researchers have developed a method to repair a damaged heart using adult stem cells, and said it confirmed that the adult cells were more therapeutically useful than embryonic stem cells.

"The adult stem cell is already prepared to differentiate in the tissue we want to repair. And it is certainly more productive, less wasteful and less dangerous - beyond the ethical aspects - to work with adult stem cells instead of embryonic stem cells," said Settimio Grimaldi, an expert at the Institute of Neurobiology and Molecular Medicine in Rome, which carried out the research.

Grimaldi spoke Aug. 15 to Vatican Radio, which hailed the published results as an important advance in stem-cell therapy. The Italian team developed a new method of isolating cardiac stem cells, cultivating them and injecting them in such a way that they replace damaged tissue; after testing on animals, the researchers hope to apply the method on humans in about three years.

Grimaldi said the method should be able to help people who have suffered heart attacks lead a fairly normal life, including work and sports activities.

"The frontier of regenerative medicine is opening, and this in our opinion is the medicine of the future," Grimaldi said.

Church experts have long argued that the use of adult stem cells is not only ethically acceptable but appears to be more promising on a practical level, and Grimaldi agreed.

"Why should we complicate things by going and taking embryonic cells, with all the ethical questions that follow?" he said.

He said that because their team's method takes adult stem cells from the patient and re-injects them, there is no problem of rejection, a major advantage in this type of treatment.