

## Investigating the Ethical Challenges of Researches and Treatments Using Stem Cells

\*Z Behrooznia<sup>1</sup>, S Mansouri Majoufardi<sup>1</sup>, Z Hazratian Azizi<sup>1</sup>

<sup>1</sup>Student of Medicine, Azad university of Mashhad, Mashhad, Iran.

### Background

Nowadays using the stem cells has opened a new horizon in the medical science and is indeed a practical and non-invasive method for treating refractory diseases such as Leukemias, lymphomas, blood disorders and so on. Nonetheless, proper and sustainable uses of such powerful cells undoubtedly need to be as per certain ethical principles. Of the existing challenges in using stem cells, we could mention issues such as: the resources used for stem cells such as fertilization and intentional abortions, generating embryos merely for laboratory studies, commercial benefits, the degree of accuracy in satisfaction, pushing therapeutic cloning towards reproductive cloning and exaggerated propagations on treatments using stem cells. Investigating the ethical challenges of researches and treatments using stem cells as well as providing suggestions on solving some ethical issues.

### Methods

The research methods are based on using the existing library resources such as books, domestic & foreign magazines as well as the internet websites bearing ethical codes.

### Results

Considering the extensive use of the stem cells, realistic programming for solving the ethical issues seems to be essential. Using replacement resources for stem cells including: IVF surplus embryos, aborted fetuses, the embryos produced by Therapeutic cloning via Somatic cell nuclear Transfer (SCNT), Induced pluripotent stem cells (iPS), and parthenogenesis are recommended. Definitely, any of the suggested replacement resources have got their own ethical and complicated issues. Promoting development of public umbilical cord blood banks in order to maintain fairness among various social classes, carrying out the preclinical researches and risk to benefit analysis, performing systematic researches, refusing to pay against donation of gametes & embryos, Recommending cellular-therapy only in case it is safer than other available therapeutic methods. Informing the patient of the adverse effects of cellular therapy, providing the low income patients with financial supports via health insurances, using moral manuals and lastly stressing on religious ethics in line with medical ethics and expanding research and studies on the use of adults' stem cells are recommended as replacement methods.

**Key words:** cellular therapy, cloning, Medical ethics, Stem cells, Research ethics.

### Poster Presentation

\*Corresponding Author: Z Behrooznia, <sup>1</sup>Student of Medicine, Azad university of Mashhad, Mashhad, Iran.