PRESS RELEASE

Men have more stem cells than women of reproductive age

Data of a multi-centric study on Spinal cord injury patients reveals

Chennai, 14 May 2012; In a study among spinal cord injury victims, it was found that the bone marrow stem cells in men were found to be relatively more than in same age group of women of reproductive age and it was also noticed that the decline in the quantity of the stem cells was sharp after the age of 40 in the both the genders.

The study accomplished by the Chennai based **Nichi-In Centre for Regenerative Medicine (NCRM)**, an Indo-Japan joint venture institute, jointly with **KG hospital, Coimbatore**, and **Omega Hospital, Mangalore** was published online in the Journal 'Bone Marrow Research' http://www.hindawi.com/journals/bmr/aip/787414/

Spinal cord injury following road traffic accident or fall from heights make the victim confined to the wheel chair due to the inability to the move the body parts below the level of injury. Recently there are evidences coming up proving the safety and efficacy of bone marrow stem cells, offering a hope to these patients. However, the quantity of bone marrow stem cells especially the CD34+ cells in quantity in total and their concentration per ml of bone marrow in spinal injury victims have not been reported to this detail said Dr. Abraham, the corresponding author of the paper. Our study has revealed that women of reproductive age group have a lower quantity of stem cells than their male counterparts, though the total quantity and concentration of stem cells are more in women in the 0-20 age group. After the age of 60, though the mononuclear cell total quantity in women is reaching the same quantity as in men, the CD34+ stem cells are still lesser in women. It is also to be noted that in general, proportionately men are more in the total number of victims of such accidents leading to spinal cord injury. In our study too, men to women ratio was 4:1.

"The bone marrow stem cells offer a great hope to spinal injury victims and we have to thoroughly research on them to bring out their best potential for treating patients and studies like this are steps towards a better understanding for translation" said Dr JKBC Parthiban, President, Neuro Spine Surgeons Association of India and a co-author in the publication.

The full article is available online at:

http://www.hindawi.com/journals/bmr/aip/787414/

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