



LETTER

## Stem Cell Therapy in Traumatic Injuries

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### SUMMARY

Stem cell therapy is the clinical applications of stem cells to regenerate the damaged tissues or organs of the body. It has been proved in clinical research that stem cells have the potential to generate or regenerate any damaged tissue in the body. Stem cells are used in clinical practice for a various sections like orthopaedics, dermatology, neurology etc. Stem cells can be applied for the patients injured by trauma to protect the patients from serious and lifelong disabilities.

**Keywords:** Stem cell therapy, injuries, trauma, emergency medicine, lifelong disability

#### Dear Editor,

Traumatic Injuries is a serious threat to global health as more than five million people in the world are losing their lives annually making it 9% of global mortality and millions are having temporary or permanent disabilities (<http://www.who.int>). The biggest cause of traumatic injuries is road traffic injuries which is currently 9<sup>th</sup> largest cause of deaths globally and has been predicted to be the top fifth cause in coming decades (<http://www.who.int>). Low and middle-income countries (LMICs) are facing serious disabilities because of in adequate care system given in emergency departments. Recently a detailed statistical analysis and possible improvement strategies has been given regarding

the care systems provided in emergency departments in LMICs which is the main reason of permanent disabilities [1, 2]. Stem cell therapy has attracted a huge attention in last few years as a promising agent in the treatment of neural damage, muscle trauma, disk degeneration, bone fusion, regeneration of craniofacial bone, spinal trauma etc [3-5]. Mesenchymal stem cells have the potential to serve as an efficient antiviral and anti-inflammatory agents against several kind of infections happened in traumatic injuries leading to disability or deaths[6]. Stem cells have also attracted attention of clinical practitioners for damaged cartilage and tendon regeneration [7, 8]. Traumatic injuries are a serious concern for health policy makers and medical practitioners on every continent regardless of

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gender, race, or economic status, as it remain a leading cause of death worldwide, accounting more than 5.8 million deaths each year. As it has been mentioned that deaths are the only one part whereas millions more are left with permanent disabilities. So, when we considered the seriousness of trauma, we propose that trauma care is very critical to improving survival chances protecting many from lifelong injury-related disabilities. Stem cells as being the third pillar of medicine should be used in traumatic care centres in emergency departments. Stem cells based regenerative medicine have potential to regenerate almost all damaged tissues and organs of the body so we should use stem cell based therapeutic techniques for routine based clinical practice in emergency departments to protect the injured ones from lifelong traumatic disabilities.

#### **Conflict of Interest:**

Authors declared no conflict of interest between them and with any other person or organization.

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There is no any conflict of interest with any person or organization regarding this manuscript.

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