



# The 2<sup>nd</sup> International Neurotrauma Congress & the 4<sup>th</sup> International Roads Safety Congress

Shefa Neuroscience Research Center, Tehran, Iran, 18-20 February, 2015

*The Neuroscience Journal of Shefaye Khatam*

Volume 2, No. 4, Suppl. 3

## Workshop Presentation

### A Controllable Brain Injury Model with a Defined Size for Evaluation of Tissue Engineered Products

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**Published: 18 February, 2015**

#### Abstract

Brain injury has a multiple pathophysiology for which there is no definite treatment. In this regard, tissue engineering is one of the probable strategies for repair of damaged tissue. But creating a proper model for testing the engineered products faced some difficulties, specially, when we want to evaluate the effects of a product on the volume of injury. The current brain injury methods couldn't provide defined brain tissue damage. We propose a new method to solve the problem. Previously, we introduced a new method for harvesting subventricular tissue from adult rat brain using a modified semi-automatic biopsy needle. We showed that a defined volume of tissue harvested from a specific area of brain without any adverse effect on other regions. We suggest using this biopsy procedure for creating a brain injury model with a defined size. Using this controllable biopsy method, we can test engineered products in a rat model of brain injury and assessed the volume of cavity after performing treatments in different groups.

**Keywords:** Brain Injury, Subventricular Tissue, Biopsy.

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