11th World Congress and Expo on
Cell & Stem Cell Research
March 25-26, 2019 | Orlando, USA

VIDEO PRESENTATION | **DAY 2**

JOURNAL OF CELL SCIENCE & THERAPY, VOLUME: 10 | DOI: 10.4172/2157-7013-C1-049

Evaluation of bee venom versus mesenchymal stem cell transplantation in treating experimental rabbit model of tempromandibular joint osteoarthritis

Ghada Salaheldin Aly Abdelkader
Suez Canal University, Egypt

Introduction: Osteoarthritis is a chronic disease that characteristically affects the articular cartilage of synovial joints and is associated with remodeling of the underlying subchondral bone and development of secondary synovitis. It is commonly affecting the temporomandibular joint (TMJ). Treatment frequently involves: drug and physical therapies, occlusal appliance, trials of local injection and surgery are applied in severe cases.

Methodology: 39 New Zealand rabbits were randomly assigned to three groups with 13 rabbits in each one weighing 3-3.5kg. Intraarticular injection of monoiodoacetate (MIA) 50µl of 5mg/ml in sterile saline to induce osteoarthritis in the left TMJ of all rabbits. The first group was left for spontaneous recovery. The second group; 4 weeks after MIA injection, TMJ was injected with 1ml of mesenchymal stem cells (MSCs) in phosphate buffer saline in a concentration of 2×106 cell/ml. The third group; 4 weeks after MIA injection, TMJ was injected with bee venom (BV) in a dose of 1mg/kg of 3mg BV/0.4ml in saline, weekly for 3 successive weeks. Left joints of all groups were histopathologically evaluated versus the right one.

Results: Hematoxylin and eosin (H&E) sections showed marked improvement in the MSCs and BV groups versus spontaneous recovery one. Os score revealed better histological recovery in MSCs in comparison to BV one. Caspase 3 was markedly induced in spontaneous recovery group and markedly decreased in both MSCs and BV groups, while Pcna was markedly expressed in both MSCs and BV groups versus spontaneous recovery one.

Biography

Ghada Abdel Kader, in 2006, June has done her Master degree in anatomy from Suez Canal University, Faculty of medicine, Ismailia, Egypt. In 2012, December: MD in Anatomy, Suez Canal University, Faculty of medicine, Ismailia, Egypt. In 2015 Diploma of medical education, faculty of medicine, Suez Canal University, Ismailia, Egypt. Involved in multiple research areas with some national and inter national publications.A member in Egyptian Anatomy association (EAA), Egyptian society for medical education and Egyptian medical syndicate.

ghada_abdelkader@med.suez.edu.eg