



Regenerative orthopedics; types of stem cells, classes of therapy, introduction of uses of stem cells in orthopedics: Case presentation; Pre and Post regenerative therapy

Kadhim Nizar Al-Salahat

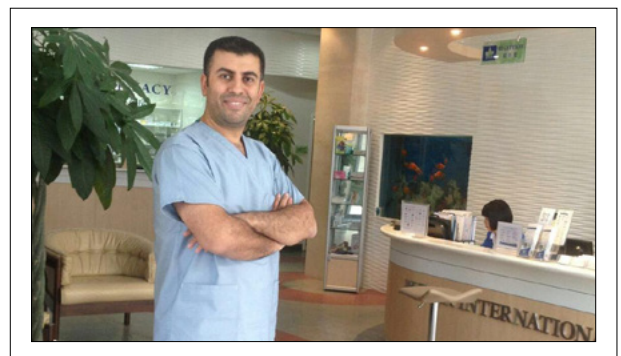
Orthopedics and Trauma Surgeon, Regenerative Medicine Researcher, Creator of Pre-SVF Arthroscopy, Founder of SC4J, Amman, Jordan

Abstract

Some orthopedic problems still have no curative treatment that challenges the treating doctors all around the world. All what can offer for patients depend on postponing the surgery or modification of the symptoms. Regenerative treatment aims to regenerate and rebuild the injured tissues instead of replacing them. It depends on the using stem cells in treatment because of their characteristics of duplicating and differentiating to other tissues. From this point, sources of stem cells were investigated and researched and comparison of sources clarify that adipose derived stem cells were the most convenient and reliable source to regenerate musculoskeletal tissues, especially the cartilages and bones. Adipose derived stem cells distinguished from other sources of stem cells by its easy and relatively safe way of extraction concurrently it is the richest source according to the available high quantity of fat in adult's body. Some special cases of Meniscal injury that compound with locked knee or complex tear require more than MSCs injection. So, Pre-SVF arthroscopy that joined a new technique of arthroscopy with MSCs from ADSCs in the type of stromal vascular fraction (SVF) will help to prepare the joint to receive MSCs in the best environment by saving the injured structures to maintain the nearest anatomical tissue positioning. So, MSCs can use all their abilities of regeneration for an effective rebuild of the tissues that can lead the joints to their nearest anatomical position like pre-injury. This simple, minimally risky method of treatment by ADSCs for osteoarthritis and other orthopedic diseases considered the golden method of choice for sport injuries and the elderly patients who have osteoarthritis with chronic existing disease. Regenerative therapy for joints can be applied for all patients who are suitable and good candidates, those who did not reach the severe advanced stage of osteoarthritis.

Biography

Nizar Al-Salahat is board-certified in orthopedics and trauma surgery from Jordan Medical Council, at the same time registered as researcher in joint regenerative treatment, formerly Medical Director and Head of Department of Orthopedic Surgery and Joint Regenerative Therapy Unit of International Pacific Medical Group in Beijing from 2011 until 2015. He has extensive international work experience in multiple countries, and he performs special surgeries in many distinguished hospitals. He participated in many conferences and training courses and gave a number of lectures on regenerative treatment of joints in various countries of the world, published scientific studies on this, and won the "Best Medical Practice" award presented by the European Medical Association in 2017. Member of the Jordanian Society of Orthopedic Surgeons, Member of the International Society of Trauma and Fracture, Member of the American Academy of Orthopedic Surgeons, Member of the European Union of National Societies for Orthopedics and Traumatology, Member of the International Federation of Sports Medicine, Member of the International Society for Stem Cell Research, Member of the Australian Society for Stem Cell Research, Member of the International Society For Tissue Engineering and Regenerative Therapy.



14th World Congress on Stem Cell Research, Cell and Gene Therapy
October 30, 2020

Citation: Nizar Al-Salahat, Regenerative orthopedics; types of stem cells, classes of therapy, introduction of uses of stem cells in orthopedics: Case presentation; Pre and Post regenerative therapy, Stem Cell Congress 2020, 14th World Congress on Stem Cell Research, Cell and Gene Therapy October 30, 2020, 08