



Stem cell therapy in regenerative medicine

Jaroslav Michalek

International Consortium for Cell Therapy and Immunotherapy, Czech Republic

Abstract:

More than 90% of all diseases are chronic, long lasting. At the beginning of the 21-st century the concept of regenerative medicine has been raised leading to more natural cures using and optimizing the capacity of human body and each cell in the body for self healing. Stem cell therapy as a new perspective, save and novel treatment option has demonstrated safety and clinical efficacy in many chronic medical conditions that are not curable by the means of chemical drugs. Here we would like to show our experience with clinical application of stem cells and other regenerative cells obtained from stromal vascular fraction (SVF) of adipose tissue. Since 2011, more than 3500 patients were successfully treated by ICCTI. Original optimized protocol for SVF cell isolation from fat tissue which leads to high quality of stem cells (CT-SVF-01 or CT-SVF-03) were used and approved by ICCTI. Mainly orthopedic patients suffering from degenerative osteoarthritis, degenerative chondropathy, neurological patients suffering from stroke, multiple sclerosis, or traumatic brain encephalopathy, patients suffering from chronic pulmonary diseases such as COPD, idiopathic pulmonary fibrosis, and chronic asthma, were successfully treated with autologous SVF cells. No serious side effects, infection or cancer was associated with SVF cell therapy in the long-term follow-up of 5+ years. Clinical effects vary broadly and depend mainly on disease stage, patient age, weight and patient behavior after the stem cell therapy leading to complete cure in a significant number of cases. In conclusion, here we report a novel and promising therapeutic approach to various range of chronic diseases that is safe, clinically effective, and relying only on autologous cells.

Biography:

Jaroslav Michalek, MD PhD (michalek@cellthera.org) obtained his MD and PhD at the Masaryk University in Brno, Czech Republic. He is trained and board-certified in Clinical Oncology, Immunology, and Pediatrics with main research and clinical interest during last 20 years in stem cell therapies, re-



generative medicine, anti-aging and cancer immunotherapy using minimally invasive, safe and effective treatment approaches. He holds a patent for isolation of stem cells from the adipose tissue and he is also an inventor of several new medical technologies related to cell therapies. Since 2011 he has served as the president of International Consortium for Cell Therapy and Immunotherapy (www.iccti.eu). He holds authorship of more than 150 scientific publications in reputed journals and books.

Publication of speakers:

- Strioga M., Viswanathan S., Darinskas A., Slaby O., Michalek J. Same or not the same? Comparison of adipose tissue-derived versus bone marrow-derived mesenchymal stem and stromal cells. Stem Cells Dev. 2012;21:2724– 2752. doi: 10.1089/scd.2011.0722.
- Michalek J., Moster R., Lukac L., Proefrock K., Petrasovic M., Rybar J., Chaloupka A., Darinskas A., Michalek J., Kristek J., et al. Stromal vascular fraction cells of adipose and connective tissue in patients with osteoarthritis: A case control prospective multi-centric non-randomized study. Glob. Surg. 2017;3:1–9. doi: 10.15761/GOS.1000163.
- Williams L.S., Weinberger M., Harris L.E., Clark D.O., Biller J. Development of a stroke-specific quality of life scale. Stroke. 1999;30:1362–1369. doi: 10.1161/01. STR.30.7.1362.

International Webinar on Tissue Engineering and Regenerative Medicine; November 23, 2020; Singapore city, Singapore

Citation: Jaroslav Michalek; Stem cell therapy in regenerative medicine; International Webinar on Tissue Engineering and Regenerative Medicine; November 23, 2020; Singapore city, Singapore.