Abstract



Stem Cell Therapy for Covid-19: Possibilities and Challenges

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Abstract:

After a year of challenge with Covid-19, we have now gained extensive experiences in the treatment of this pandemic infection. At the same time, we have learned that the complexity of the diseases requires additional and novel treatment strategies. Among these strategies cell therapy is of high interest. It seems exacerbated immune responses play critical roles in the severity of covid-19 patients and systemic manifestations of are associated with cytokine release storm due to immune system hyperactivity. Mesenchymal stem cells (MSCs) have been shown to possess a comprehensive powerful immunomodulatory function by paracrine secretion or make direct interactions with immune cells. To date, one randomized double blind clinical trial has been reported that UC-MSC infusions in COVID-19 subjects with ARDS were safe and associated with reduction in mortality and time to recovery. Apart from the mentioned trial there are several non-randomized and case series trials that employed MSC for treatment of COVID-19 patient including our study in Royan Institute. More than sixty study registered in NIH that requiting COVID patients for MSC therapy.Although there is promising data regarding of MSC therapy however data for critical and sever patients are controversy and in this presentation, I am going to have a look for recent studies in this field and challenges of MSC therapy in COVID patients.

Biography:

MD degree from Urumieh Medical University (Iran) in 1998 and a Ph.D. in Immunology from Tarbiat Modares University (Iran) in 2004 and Infectious diseases fellow resident in Tehran university of medical sciences. Associated professor at Royan Institute from 2006. Founder of Regenerative Medicine department of Royan institute. Published over 120 international papers and editor of three books in Stem Cell and Regenerative Medical field. Awarded young investigator in 2012 from ISCT. Founder and Ex- Chief executive officer of Cell Tech Pharmed Company



Publication of speakers:

- Nasser Aghdami et al ; Transplantation of Mouse Induced Pluripotent Stem Cell-Derived Podocytes in a Mouse Model of Membranous Nephropathy Attenuates Proteinuria, 2019 Oct 29
- Nasser Aghdami et al ; Topical Tacrolimus as an adjunct to Conventional Therapy for Stromal Herpetic Keratitis: a Randomized Clinical Trial, 2019 Oct 24
- Nasser Aghdami et al ; Long-Term Follow-up of Autologous Fibroblast Transplantation for Facial Contour Deformities, A Non-Randomized Phase IIa Clinical Trial, 2019 Sep 8
- Nasser Aghdami et al ; COMPARE CPM-RMI Trial: Intramyocardial Transplantation of Autologous Bone Marrow-Derived CD133+ Cells and MNCs during CABG in Patients with Recent MI: A Phase II/III, Multicenter, Placebo-Controlled, Randomized, Double-Blind Clinical Trial, 2018 May 28
- Nasser Aghdami et al ; COMPARE CPM-RMI Trial: Intramyocardial Transplantation of Autologous Bone Marrow-Derived CD133+ Cells and MNCs during CABG in Patients with Recent MI: A Phase II/III, Multicenter, Placebo-Controlled, Randomized, Double-Blind Clinical Trial, 2018 March 18

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