allied academies

Res Rep Gynaecol Obstet, Volume 3
DOI: 10.4066/2591-7366-C1-003

Joint Event on

International Conference on
Palliative Care, Obstetrics and Gynecology

&

International Conference on
Stroke and Clinical Trials

February 28-March 01, 2019 | Paris, France

The efficiency of intracerebral and intravenous MSCs administration in resolving diffused and neuritic Amyloid-β aggregates by recruiting bone marrow-induced Microglia M2 type in Alzheimer's disease rat model

Mai M Anwar[1], Badawi A M[1], Nadia A Eltablawy[1], Ola S M Ali[2] and **Laila Ahmed R[3]**

[1]National Organization for Drug Control and Research, Egypt
[2]Al-Azhar University, Egypt
[3]Cairo University, Egypt

Background & Aim: Memory and learning disorders have been characterized by being a devastating long-term incurable diseases with a huge social and economic impact on worldwide society in addition to a diminished efficient available medical treatments with the potential for restoring and modifying memory defects onset and drawbacks. Deep brain stimulation via using neuroprotective inducers for restoring destructive degenerative brain structural diseases such as AD can be considered as being a promising successful therapy due to its various targets and underlying mechanisms for improving brain dysfunction by increasing synaptic plasticity and transmission. The main aim of this study is to suggest therapeutic medical protocol with a neuro regenerative potentials having the ability to restore normal brain mechanisms and mental functions in addition to understanding triggering pathways via which normal neurons diverse population restoration process can occur.

Method: Rats were divided randomly into nine groups, (G1) control group (G2) rats received lipopolysaccharide (LPS) injection (G3) LPS induced rats received NaHS, (G4) LPS induced rats received MSCs intracerebrally, (G5) LPS induced rats received MSCs+NaHS, (G6) LPS induced rats received kefir+Ginko Biloba (GB), (G7) LPS induced rats received MSCs+kefir+GB, (G8) LPS induced rats received NaHS+kefir+GB and (G9) LPS induced rats received MSCs+NaHS+kefir+GB.

Result: AD induction by LPS in rats resulted in downregulation of CBS and GSH brain tissue level accompanied with overexpression in amyloid β, MAPK, Tau, ACAT and MDA brain level in addition to elevated caspase-3 serum activity level.

Conclusion: The administration of suggested medical protocol composed of MSCs and/or NaHS and/or kefir+GB resulted in relieving AD pathological deposited hallmarks with restoring the normal inflammatory brain excitatory levels by functioning as a potent neuro regenerative with the advantage of being easily implemented on human subjects as a result of its safety but with more clinical care obligations during conducting experimental design to minimize unpredictable drawbacks.

e: mainwr@hotmail.com