

International Conference on

CENTRAL NERVOUS SYSTEM DISORDERS & THERAPEUTICS

August 13-14, 2018 | Rome, Italy

GABA synaptopathies promotes apoptosis in Egyptian autistic patients

Naima Zayed Mohamed², Afaf El-Ansarya^{1,2,3}, Laila Al-Ayadhi^{1,3}, Hanan Qasem³ and Nagwa A Meguid²

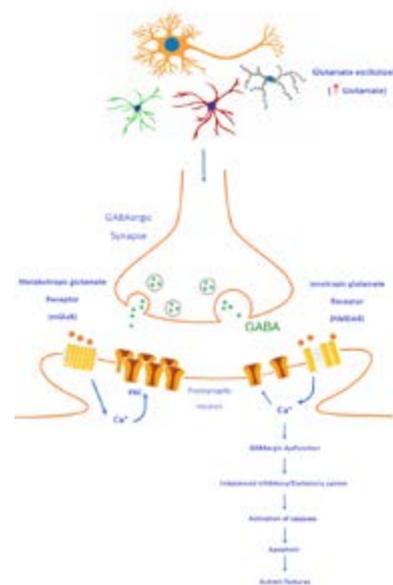
¹King Saud University, Saudi Arabia

²National Research Centre, Egypt

³Autism Research and Treatment Center, Saudi Arabia

Autism is an early onset neurodevelopmental disorder that is characterized by a lack of social communication and stereotyped and repetitive behaviors. It affects more than 1% of the population worldwide. Many studies have proved the role of synapses in information coordination and travel throughout the nervous system and control different brain-related functions. Synaptopathies arises from alterations that affecting the integrity and/or functionality of synapses and can contribute to synaptic pathologies. It play an important role in brain developmental disorders such as autism. This study investigates the plasma levels of caspases 3, caspases 9 and GABA in 20 autistic children and 20 healthy controls. Receiver Operating Characteristics analysis of the obtained data was performed to measure the predictive value of caspases 3 and caspases 9 as apoptotic related parameters and GABA as inhibitory neurotransmitter. Pearson's correlations, multiple regressions between the measured parameters were also performed. The concentrations of caspases 3, caspases 9 in autistic patients were significantly higher than those in controls. While GABA level was reduced in autistic patients. However, ROC and predictivness curves showed that caspases 3, caspases 9 and GABA can be used as predictive parameters in autism diagnosis. This study indicates that the

presence of GABAergic dysfunction and increase apoptosis in Egyptian children with autism. More studies are needed to understand the real mechanism of GABA dysfunction in autism disorder.



Biography

Naima Zayed Mohamed has completed her PhD at the age of 40 years from Cairo University and Postdoctoral Studies from National Research Centre, Egypt. She has published more than 25 papers in reputed journals.

Naimazayed@hotmail.com

Notes: