



Review

Drug therapy in autism: a present and future perspective

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Abstract:

Autism is a neurodevelopmental disorder, with a multifactorial etiology, characterized by severe abnormalities in communications, social awareness and skills, and the presence of restrictive and stereotyped patterns of behaviors. It is traditionally considered a “static” encephalopathic disorder without any specific cure and few effective biomedical interventions. There are various factors which are involved in the etiopathogenesis of autism or autism spectrum disorder (ASD) such as impaired immune responses, neuro-inflammation, abnormal neurotransmission, oxidative stress, mitochondrial dysfunction, environmental toxins and stressors. The autism is often associated with a number of genetic disorders such as fragile X syndrome, tuberous sclerosis, epilepsy and Down syndrome. The recent approaches to autism treatment included various non-pharmacological and pharmacological therapy such as food supplementation, detoxification, treatment of neuroinflammation, immunologic treatments and psychotropic medications, which are found to be effective in treating various behavioral symptoms of autism. In current practice, there is no curative treatment for autism but the recommended treatment for autism involves educational therapies: speech therapy, sensory integration therapy, auditory therapy. There are classes of different pharmacological agents which are found to be effective in improving behavioral symptoms of ASD such as neurotransmitter reuptake inhibitors (fluoxetine), tricyclic antidepressants (imipramine), anticonvulsants (lamotrigine), atypical antipsychotics (clozapine), acetylcholinesterase inhibitors (rivastigmine), etc. New classes of drugs with novel mechanisms of action should be there so that this disorder will become less prevalent in the future.

Key words:

autism, ASD, behavior, clinical studies, drugs
