عنوان مقاله:

A smart & precise approach with nanoparticles-based therapeutic intervention in neurodegenerative diseases

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خلاصه مقاله:

Neurodegenerative diseases (NDs) cause cell dysfunction with a gradual loss of neurons in the central nervous system and aberrant accumulation of aggregated proteins such as synuclein, tau, and amyloid. Alzheimer's disease and Parkinson's disease are the two frequently occurring neurodegenerative disorders. Nanobiotechnology being an emerging field used in applied biotechnology holds great potential for the advancement of treatments. This review aims to give a brief but comprehensive idea about the possibilities of utilizing the advanced nanotechnological aspect to treat the Alzheimer's and Parkinson's NDs that can be explored through proper investigations. In the present study, various kinds of literature were surveyed and reviewed to appreciate the neurodegenerative disease manifestation. It is becoming challenging to treat and discuss the potentiality of effective nano-mediated treatment strategies for Alzheimer's and Parkinson's diseases. The capability of current drugs to cross the blood-brain barrier (BBB) makes NDs' treatment even more challenging. Recent therapies for such kinds of diseases are focused on symptomatic relief. Nanoparticulate drug delivery systems address all the challenges from all aspects and offer novel therapeutics for NDs. With targeted drug delivery of the required drug or protein to the site of interest, this approach is expected to turn out to be an exact and advanced therapeutic approach.

کلمات کلیدی:

Administration, classification, Dosage Nanobiotechnology, Neurodegenerative disease, Therapy, Toxicity, Therapeutic use

لینک ثابت مقاله در پایگاه سیویلیکا: