

عنوان مقاله:

Effects of the lead, cadmium, manganese heavy metals, and magnesium oxide nanoparticles on nerve cell function in Alzheimer's and Parkinson's diseases

محل انتشار:

مجله نوآوری علوم پزشکی و داروسازی آسیای مرکزی، دوره 2، شماره 1 (سال: 1401)

تعداد صفحات اصل مقاله: 12

نویسنده:

Qassim Hassan Aubais Aljelehawy - *Department of Medical Laboratory Technique, Islamic University, Diwaniya, Iraq*

خلاصه مقاله:

Nervous disorders affect the central nervous system and cause progressive impairment of the nervous system. These disorders are usually incurable and debilitating and are characterised by a loss of nerve cell function. The most common chronic neurological disorders are Parkinson's disease (PD) and Alzheimer's disease (AD). Damage to the nerves usually progresses with age, as seen in AD and PD. Although Parkinson's and Alzheimer's diseases are multifactorial, exposure to heavy metals in neurons could increase the risk of developing these diseases. Metals are essential for maintaining cellular homeostasis and life. They have critical structural, catalytic, and regulatory functions in various types of proteins such as receptors, enzymes, and transporters. However, high and toxic concentrations of metals can stimulate the formation of reactive oxygen species (ROS) via a vicious cycle by impairing mitochondrial function, leading to a reduction in ATP and eventually cell death through an apoptotic mechanism. As life expectancy increases, individuals are certainly exposed to higher metal concentrations over a long period of time, which may lead to an increase in the incidence of neurological diseases. The aim of this study was to describe the effects of heavy metals such as manganese, lead and cadmium on the progression of the neurological diseases Parkinson's and Alzheimer's disease.

کلمات کلیدی:

heavy metals, Progressive neurological diseases, Neurons, Parkinson' s disease, Alzheimer' s disease

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1395670>

