عنوان مقاله:

Effect of Glibenclamide as a KATP Channel Blockade in Treatment of Parkinson Disease in the ۶-Hydroxydopamine-Induced Animal Model

محل انتشار:

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خلاصه مقاله:

Abstract: Parkinson disease is a most common neurodegerative disease in the world after Alzheimer disease. The most important cause of Parkinson's is damage to dopaminergic cells in the midbrain area. Glibenclamide is a second-generation sulfonylurea; it has an inhibitory effect on surface and mitochondrial KATP channels.Many reports indicate that glibenclamide can have neuroprotective effects in many neurodegenerative disorders. In the present study, we investigated the effect of glibenclamide pretreatment on behavioral symptom in ۶-hydroxydopamine-induced animal model. Rats were divided into ۴ groups (n=۸ per group). Group (I): control without intervention Group (II): Vehicle, Group (III): received as pretreatment glibenclamide (۳ mg/kg) i.p from begining of surgery until ۴ weeks every day. Group (IV): received as pretreatment glibenclamide (۸ mg/kg). In all group except healthy group received ۶-OHDA by stereotaxic surgery. Development and severity of Parkinson disease were evaluated by apomorphine-induced rotational and rotarod behavioral tests. Our result showed that in two behavioral tests , pretreatment with glibenclamide could attenuate severity of Parkinson disease in treatment groups. There was no significant difference between treatment groups with different doses of glibenclamide. So our data showed pretreatment with KATP channel blockers reduces the severity of Parkinson's symptoms caused by the OHDA-۶ model in rats in behavioral studies.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: