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Beneficial effect of *Amorphophallus paeoniifolius* in the management of diabetic neuropathy

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Present study was undertaken to evaluate the effect of tubers of *Amorphophallus paeoniifolius* in the treatment of diabetic neuropathy. *Amorphophallus paeoniifolius* (Araceae family) have been widely used as a potential natural medicinal product in traditional Indian Ayurveda. Animals were divided in 4 groups (n=6), diabetes was induced by STZ 60 mg/kg, IP and treated with methanolic extract of *Amorphophallus paeoniifolius* at of 250 mg/kg and 500 mg/kg p.o. dose for 3 weeks. Measurement of blood glucose level was used to determine diabetes. For determination of diabetic neuropathy tail flick, swim endurance test and Rota-road method were used. There was significant increase ($p < 0.01$) in the blood glucose level in negative group compared to control group of rats. There was decrease ($p < 0.01$) blood glucose level in STZ+AP extract (250 mg/kg) and STZ+AP extract (500 mg/kg) treated group compared to Negative-control Group. There was significant increase ($p < 0.01$) in time to flick the tail of diabetic rats compared to control group which were significantly improved in STZ+AP extract (250 mg/kg) and STZ+AP extract (500 mg/kg) treated group compared to Negative-control group. Muscle strength was significantly decreased ($p < 0.01$) in rats treated with STZ analyzed on Rota-rod apparatus. There was significant improvement ($p < 0.01$) in muscle strength in STZ+AP extract (250 mg/kg) and STZ+AP extract (500 mg/kg) treated group compared to negative-control group. Mobility time was decreased in negative group measured in force swim test and treatment with STZ+AP extract (250 mg/kg) and STZ+AP extract (500 mg/kg) shows significant improvement in mobility time treated group compared to negative-control group. Present study concludes that methanolic extract of *Amorphophallus paeoniifolius* may be useful in treatment and management of diabetic neuropathy.

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