

Neuroprotective Effects of Pomegranate Juice in Mice

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ABSTRACT

A keen interest in therapeutic properties of pomegranate has prompted numerous *in vitro* and *in vivo* animal and clinical studies. However, not much work has been done on the psychopharmacological actions of pomegranate juice. Therefore, this study explore the neuroprotective potential of pomegranate juice in mice. A total of 204 Swiss male mice divided into 34 groups were employed in the present investigation. Pomegranate juice (10% v/v) showed significant improvement in the memory of young and aged mice, when tested in object recognition task model. The pomegranate juice also reversed the memory deficits induced by diazepam (1 mg/kg, i.p.), scopolamine (0.4 mg/kg, i.p.) and sodium nitrite (75 mg/kg, s.c.). Furthermore, pomegranate juice showed hypoglycemic effect in mice and increased brain reduced glutathione levels. The underlying mechanism of action for the observed memory enhancing effect of pomegranate juice could be attributed to its anti-oxidant and glucose lowering property. This study highlights the neuroprotective potential of pomegranate juice in various experimental models.

Key words :

Pomegranate
juice, Memory,
Alzheimer's
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