

Original Article

Black seed oil improves motor and anxiety-like behaviours and cerebellar cyto-architectonic in adult male wistar rats

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ABSTRACT

The objective of this study was to investigate the potential efficacy of black seed oil (BSO) in motor activity, anxiety-like behaviour, cerebellar architecture and Purkinje morphometric in Wistar rats. Saline and Black seed oil were administered to adult rats at 1 ml/kg orally for 14 days, the rats were then subjected to behavioural tests to evaluate locomotor activity and anxiety-like behaviour using open field test (OFT) and elevated plus maze paradigms respectively. The cerebelli were removed, processed and stained for cerebellar architectonic and Purkinje morphometric respectively. BSO significantly ($P \leq 0.05$) increased frequency of line crossing, rearing frequency and total alternation, which are measures of motor activities. It increased open arm explorations, head dip frequency, decreased freezing period and closed arm entry, which are measures of anxiety-like behaviours and did not affect either the architectonics of the cerebellar cortices or the Purkinje morphometric when compared with the control. These results suggest that BSO may reduce anxiety related behaviours in Wistar rats.

Keywords: Black seed oil, anxiety, psychomotor disorders, Purkinje morphometry, cerebellar architectonic
