

The effect of carbamazepine on sperm counts in Wistar rats - reflecting upon its mitogenic potential

Abstract

The present study was aimed to investigate the effects of carbamazepine, an antiepileptic drug, on sperm count in rats. Male Wistar rats were treated with carbamazepine at doses of 9, 18, and 36 mg/kg for five consecutive days. Following the last exposure, on days 14 and 35, spermatozoa were collected from epididymis and counted. On day 14, carbamazepine treatment decreased the sperm number in a dose dependent pattern. On day 35, 9 mg/kg and 36 mg/kg of carbamazepine increased the sperm number in comparison with untreated rats. The results of the study suggest that carbamazepine is a germ cell mitogen.