INVESTIGATING THE EFFECT OF TIZANADINE IN DEPRESSION USING ANTIDEPRESSANT SCREENING TEST IN MICE

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Background: Tizanadin is been evaluated as a novel drug candidate for treating depression using Mice. The various limitations of presently available antidepressants stress the need for improve pharmacotherapy intervention. Tizanadin may be a potent new therapeutic option for depression because studies have shown that Alpha 2 adrenergic receptor activation contributes to the antidepressants effect of Noradrenalin reuptake inhibitors like Desipramine, suggesting the possibility of Tizanadin as a good antidepressant.

Method: Tail suspension test (TST) and Force swim test (FST) were used as antidepressant screening test. The mice were treated with: 10mg/kg distilled water(Group 1), 15mg/kg Imipramine (Group 2), 4mg/kg Tizanadin(Group 3), 2mg/kg Tizanadin(Group 4), and 1mg/kg Tizanadin (Group 5) intraperitonially. Test for stimulant activity was evaluated using open field test(OFT).

Results: Tizanadine produce significant antidepressant like effect at all dose tested as indicated by reduction in immobility time of mice in FST and TST($p < 0.05$). The efficacy of Tizanadine were found to be comparable to Imipramine 15mg/Kg. There was no significant increase in number of line crossed in OFT.

Conclusion: Tizanadin possesses significant antidepressant like effect.