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Poster Presentation

Mephedrone Exposure in Pegnancy Iinduces Antiprolifrative and Proapoptotic Effects in Hippocampus of Mice Delivered Pups

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Abstract

In recent years, abuse of synthetic cathinones, in particular, mephedrone, has increased among young adults worldwide. The study aim is to investigate the effects of mephedrone exposure during the gestational period on mice offspring outcomes, focusing on hippocampal neurotoxicity. The pregnant mice received mephedrone (50mg/kg, sc) on a regular schedule (once daily on all days, from day 5 to 18 of gestation) or repeated schedule (thrice daily on day 5, 6, 11, 12, 17, and 18 of gestation) to simulate regular or recreational use of mephedrone, respectively. Immunohistochemis try and TUNEL assay showed an inhibition of cell proliferation ($p<0.05$) and an increase of apoptosis ($p<0.05$) in the hippocampus of delivered pups of the repeated schedule mephedrone group. In conclusion, the present study has shown that repeated use of mephedrone impairs learning and memory processes through hippocampal damage.

Keywords: Hippocampus, Mice, Memory

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