

Effect of *Portulaca oleraceae* L. extracts on the Morphine Dependence in Mice

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Abstract

Objective

This study was initiated to investigate the effect of *Portulaca oleraceae* on morphine dependence in mice.

Materials and Methods

Dependence was induced using the subcutaneous injections of morphine for 3 days. On the day 4, morphine injected 2 h prior to intraperitoneal injection of naloxone. The plant extracts ethanolic or aqueous administered 0.5 h before the final dose of morphine. The number of jumping during the 30 min period after naloxone injection was considered as a measure of withdrawal syndrome.

Results

Both extracts reduced the jumping episodes dose-dependently. The maximum effect was observed at doses of 0.28 g/kg and 1.4 g/kg for the aqueous and ethanolic extracts, respectively. Clonidine and extracts decreased the total activity in locomotion test.

Conclusion

These findings indicated that *Portulaca oleraceae* extracts can decrease morphine dependence in mice.

Keywords: Morphine, Dependence, *Portulaca oleraceae*

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