عنوان مقاله:

Potential Neuroprotective Effect of Apis dorsata Honey against Morphine Tolerance: An in vivo Study

محل انتشار:

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خلاصه مقاله:

Background: To determine the effects of Apis dorsata honey on the development of morphine tolerance and oxidative stress in rats.Materials and Methods: A total of ۴۰ male Sprague Dawley rats were injected (subcutaneous) with ۱۰ mg/kg of morphine following oral administration of A. dorsata honey (۰.۵, ۱.۵, and ۲.۵g/kg). On day ۱۵, the rats were euthanized, and the thalamus, spinal cord, and hippocampus were homogenized to assess iNOS and MDA using ELISA kits.Results: The honey of A. dorsata significantly prevented morphine tolerance to analgesia in the hotplate test on Day ۱۴ ($p<۰.۰۵$). The biochemical assessment showed that A. dorsata honey significantly reduced MDA formation in the brain regions compared to the morphine control group at dose ۲.۵g/kg. Elevation of iNOS caused by chronic morphine intake was reduced in A. dorsata honey co-treatment.Conclusion: This study suggests the therapeutic role of A. dorsata honey in preventing morphine tolerance via inhibition of oxidative stress.

کلمات کلیدی:

Morphine tolerance, A. dorsata honey, Oxidative stress