

## عنوان مقاله:

Antinociceptive effect of methanolic extract and alkaloid fractions of Berberis integerrima root in animal models

## محل انتشار:

مجله گیاهان دارویی ابن سینا، دوره 8، شماره 3 (سال: 1397)

تعداد صفحات اصل مقاله: 10

## نویسندگان:

Valiollah Hajhashemi - *Department of Pharmacology and Isfahan Pharmaceutical Sciences Research Center, School of Pharmacy and Pharmaceutical Sciences, Isfahan University of Medical Sciences, Isfahan, Iran*

Forough Fahmideh - *Department of Pharmacology and Isfahan Pharmaceutical Sciences Research Center, School of Pharmacy and Pharmaceutical Sciences, Isfahan University of Medical Sciences, Isfahan, Iran*

Mustafa Ghanadian - *Department of Pharmacognosy, Isfahan School of Pharmacy and Pharmaceutical Sciences, Isfahan University of Medical Sciences, Isfahan, Iran*

## خلاصه مقاله:

Objective: Berberis vulgaris has antioxidant, hepato--renal protective, antibacterial, lipid lowering, anti-inflammatory and antinociceptive activities. The genus Berberis, has another member called Berberisintegerrima which has not been studied for antinociceptive activity and therefore, this study was aimed to examine the antinociceptive effect of total extract and alkaloid fractions of Berberis integerrima root in mice. Materials and Methods: Methanolic total extract and alkaloid fractions of the plant namely, fractions A, B, C and D were prepared according to standard methods. Male Swiss mice (20-25 g) were used (n=6 in each group). Acetic acid-induced writhing, formalin and hot-plate tests were used to assess the antinociceptive activity. In hot plate and formalin tests, morphine (10 mg/kg, i.p.) and in acetic acid test, indomethacin (10 mg/kg, i.p.) were used as reference drugs. Results: The total extract and fractions A, B and D significantly reduced abdominal twitches in acetic acid test and licking behavior of both acute and chronic phases of formalin test. In hot-plate test, morphine as the standard drug demonstrated significant antinociception while the plant extract and fractions were ineffective. The dose of 5 mg/kg of fraction C showed slight analgesia only in acetic acid test and a dose of 10 mg/kg caused severe toxicity and even death in some animals. Conclusion: Berberis integerrima total extract and its alkaloid fractions showed antinociceptive effect and it seems that the mechanism of this action is peripherally mediated since they were effective in formalin test and acetic acid-induced writhing but not in hot-plate test.

## کلمات کلیدی:

Berberis integerrima, Writhing test, Formalin test, Hot plate test, Antinociceptive

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/893592>



