

عنوان مقاله:

Analgesic effect of Persian Gulf Conus textile venom

محل انتشار:

مجله علوم پایه پزشکی ایران، دوره 17، شماره 10 (سال: 1393)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

Objective(s): Cone snails are estimated to consist of up to 700 species. The venom of these snails has yielded a rich source of novel peptides. This study was aimed to study the analgesic effect of Persian Gulf Conus textile and its comparison with morphine in mouse model. Materials and Methods: Samples were collected in Larak Island. The venom ducts were isolated and kept on ice then homogenized. The mixture centrifuged at $10000 \times g$ for 20 min. Supernatant was considered as extracted venom. The protein profile of venom determined using 15% sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE). Venom was administered intraperitoneally (IP) to evaluate the LD₅₀ in Swiss albino mice. Different concentrations of Conus textile venom were injected intrathecally to mice to evaluate their analgesic effect in comparison to morphine. Injection was carried out between the L₅ and L₆ vertebrae. Differences between groups in the first and second phase were tested with Two-Way analysis of variance (ANOVA). Results: SDS-PAGE indicated 12 bands ranged between 6 and 180 KDa. Finally, ten ng of Conus crude venom showed the best analgesic activity in formalin test. No death observed up to 100 mg/kg. Analgesic activity of crude venom was more significant ($P < 0.05$) in acute pain than inflammatory pain. The analgesic effect of 10 ng Conus venom was the same as morphine for reduction of inflammatory pain ($P = 0.27$). Conclusion: The venom of Persian Gulf Conus textile contains an analgesic component for relieving of acute pain which can lead to find an analgesic drug.

کلمات کلیدی:

Analgesic activity, Conus textile, Persian Gulf, Venom

لینک ثابت مقاله در پایگاه سیویلیکا:

