

Proliferative effect of aqueous extract of *Hyptis fruticosa* in liver regeneration in rats after partial hepatectomy

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Objective: To evaluate the effects of aqueous extract of *Hyptis fruticosa* in liver regeneration after partial hepatectomy in rats.

Materials and methods: The study was conducted in 16 Wistar rats (300 to 450 g). All animals were randomly divided into two groups, which consisted of eight animals each: control group (CG), the rats received water for 4 days and the HF group, where rats received aqueous extract of *Hyptis fruticosa* for 4 days at a dose of 100 mg / kg / day. In this consecutive day treatment, the animals of both groups were submitted to partial hepatectomy approximately 67% of the liver. All operations were performed under inhalation anesthesia with ether. After 24 hours, they underwent a new operation to remove the liver remanescence. Then they were sacrificed. Liver regeneration was evaluated by PCNA immunohistochemistry using monoclonal anti-PCNA primer (PC-10; DAKO A / S, Glostrup, Denmark). All data are expressed as mean \pm standard deviation. Statistical comparisons between groups were performed by Mann-Whitney test ($p < 0.05$).

Results: The rate of liver regeneration, which was assessed by proliferating cell nuclear antigen (PCNA), using monoclonal anti-PCNA primary, was significantly higher on the HF group than on the control group (CG). On the HF group this rate was $53.56\% \pm 18.91$ while the CG presented index $21.12 \pm 8.29\%$. With the use of aqueous extract of *Hyptis fruticosa*, liver regeneration increased by about 2.5 times.

Conclusion: The present study shows that the aqueous extract of *Hyptis fruticosa* dose of 100 mg/kg/day stimulated liver regeneration in rats.

Biography

Aloisio Ferreira Pinto Neto has completed his graduation at the age of 26 years from the Universidade Federal de Sergipe, one of the ten best medical universities of the country.

Phytochemical investigation of main components from *Pimpinella deverroides* (Boiss.) Boiss.

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The genus *Pimpinella* is a yearling or perennial herbaceous plants which belongs to the Apiaceae family. 23 species of genus *Pimpinella* exist in Iran. *Pimpinella deverroides* (Boiss.) Boiss. is an endemic one that grows in Iran and Touran Regions. This plant was collected from Kordestan province and been dried at an appropriate condition. Aerial parts of this plant (1500 g) were crushed and extracted with n-hexane & EtOAc by percolation at room temperature to obtain n-hexane extract (28 g) & EtOAc extract (10 g). The extracts were subjected to silica gel column chromatography (CC) and the fractions were detected by thin layer chromatography (TLC) and the isolated compounds were purified. The purified compounds were identified by their GC-Mass & NMR spectral data. Altogether 5 compounds were purified and identified. They are 3 sesquiterpenoids, 1 triterpenoid & 1 sterol.

Biography

Amir Ehsan Badami has completed his M.Sc. at the age of 24 years from Pharmaceutical Sciences Branch of Islamic Azad University and he is pursuing his Ph.D. at Tehran University School of Medicine.