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Cimicifuga racemosa-The phytoestrogen

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Phytoestrogen may be defined as plant constituent possessing the ability to mimic the biological effects of beta eastradiol in laboratory tests by their ability to bind to the nuclear estrogen receptor, activate transcriptional response and to promote growth of estrogen dependent MCF7 cells in culture.

Phytoestrogenic constituents of foods and medicinal herbs may interact with steroid sex hormone metabolism, and synergize with exogenous steroid hormones in ERT (estrogen replacement therapy), HRT (hormone replacement therapy), or GnRH (ghonadotrophic releasing hormone) inhibitors.

Traditionally, a large number of different herbs have been used to affect different aspects of the activity of the female reproductive tract. The most important phytoestrogenic plant in common therapeutic use is Cimicifuga racemosa (Black cohosh).

The plant has the same effects on the female system as synthetic estrogen, without the side effects. Best of all, it has no cancer causing agents like synthetic estrogen as biological activity of phytoestrogens extend beyond simple estrogen receptor activity to effects on cellular differentiation, proliferation, angiogenesis, enzyme inhibition, growth factor action and other effects which constitute protective activity against cancer.

In clinical practice, it has long been known that phytoestrogenic medicinal herbs often have both estrogenic and antiestrogenic actions. As Cimicifuga racemosa may be used to help correct estrogen dominance in pre- menopausal women yet supports estrogenic activity in post- menopausal women. This variability in action remains to be elucidated in terms of potency of phytoestrogenic constituents, balance of agonistic and antagonistic tendencies and compounds, short and long term effects, as well as the problem of different methodological approaches used to identify estrogenicity.

Cimicifuga racemosa also influence pituitary action by peripheral modulation of LH and FSH via estrogenic effect.

There is the need to evaluate the effects of these herbs with a scientific approach so that these can help us in future to replace the need of synthetic oestrogen with their side effects.

Effect of aqueous extract of the leaves of *Baccharis trimera* on the proliferation of hepatocytes after partial hepatectomy in rats

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Purpose: To evaluate the effect of aqueous extract of the leaves of Baccharis trimera on the proliferative capacity of the liver after partial hepatectomy (PH) in rats.

Methods: Twenty Wistar rats weighing 300-450 grams were divided into two groups: control (HP) and test (HP100- whose rats received the aqueous extract of Baccharis trimera during four days using the dose of 100 mg/kg/day). On the fifth day, animals from both groups underwent resection of approximately 70% of the liver. Twenty-four hours later, they were sacrificed and the remnant liver was removed and prepared for study using the technique of immunohistochemistry (PCNA). Data analysis for comparison between the two groups was made through the non-parametric statistical Mann-Whitney test.

Results: Positive nuclear immunostaining was found more abundant in hepatocytes located in the interlobular regions of the liver in all studied animals. Quantitative analysis is of PCNA-positive cells revealed positivity rate significantly higher mean (p =0.02) in HP100 group (77.1±13.6) compared to HP group (45.8±12.9).

Conclusion: Thus, administration of aqueous extract of the leaves of Baccharis trimera, at a concentration of 100 mg/kg of animal, has a significant positive effect on 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.