J Steroid Biochem Mol Biol. 2005 Nov;97(3):271-7. Epub 2005 Sep 26.

No estrogen-like effects of an isopropanolic extract of Rhizoma Cimicifugae racemosae on uterus and vena cava of rats after 17 day treatment.

Kretzschmar G[1], Nisslein T, Zierau O, Vollmer G.

Author information

Abstract

The effects of black cohosh extracts (Rhizoma Cimicifugae racemosae) on primary estrogen target organs, like mammary gland and endometrium are better described then those on other estrogen-sensitive systems e.g. the vasculature. We therefore treated ovariectomized DA/Han rats for 17 days with an isopropanolic Cimicifuga racemosa rhizoma extract (iCR) alone and in combination with the pure antiestrogen fulvestrant. As control groups vehicle, estradiol, fulvestrant, and estradiol fulvestrant cotreatment were used. Effects of all substances were investigated by vena cava and uterine gene expression analysis using real-time-PCR. Uterus wet weight was increased after estradiol treatment compared to the negative controls but none of the other treatments including the treatment with iCR had a uterotrophic effect. While estradiol-induced changes in uterine gene expression were mainly analogous to those detectable in shorter term experiments, iCR showed no or slightly antiestrogenic effects on gene expression in the uterus. This is mirrored in the vena cava where iCR had a very minor impact on the expression of the genes analyzed. While C. racemosa is effectively used for treatment of peri- and post-menopausal symptoms for a long time its mechanism of action remains unresolved. Contrary to earlier suggestions C. racemosa does not seem to act as an estrogen agonist, but possibly as a weak antiestrogen.

PMID: **16191479** [PubMed - indexed for MEDLINE]