Abstract

Women's Health Initiative findings indicate that hormone replacement therapy may increase breast cancer and cardiovascular disease risk. Black cohosh extract (BCE) is a popular alternative that reduced menopausal symptoms in several clinical trials. Preclinical studies have addressed the estrogenic properties of BCE, with conflicting results. The estrogenic influence of BCE on the breast has not been investigated. Black cohosh is standardized to triterpenes, but the activity and mechanism of action of these compounds are unknown. The study goals were to determine 1) triterpene content of 2 commercially available BCE preparations and 2) the effect of BCE on circulating and breast-specific estrogenic markers. Two black cohosh preparations were analyzed for triterpene content. Postmenopausal women took BCE for 12 wk followed by a 12-wk washout. One BCE preparation contained trace amounts and another contained 2.5% triterpenes. Women taking BCE with 2.5% triterpenes experienced relief of menopausal symptoms, with reversion toward baseline after washout. BCE had no effect on estrogenic markers in serum and no effect on pS2 or cellular morphology in nipple aspirate fluid. Triterpene content in commercially available black cohosh preparations varies. BCE standardized to 2.5% triterpenes relieved menopausal symptoms without systemic or breast-specific estrogenic effects.

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