Effects of one-year treatment with isoflavone extract from red clover on prostate, liver function, sexual function, and quality of life in men with elevated PSA levels and negative prostate biopsy findings.

Engelhardt PF, Riedl CR.
Department of Urology and Andrology, Landesklinikum Thermenregion Baden, Austria. paul.engelhardt@baden.lknoe.at

OBJECTIVES: To assess the effect of an isoflavonoid extract from red clover on the prostate, liver function, quality of life, and sexual function in men with an initial elevated prostate-specific antigen (PSA) level and negative prostate biopsy findings during a 1-year treatment period. METHODS: A total of 20 men (mean age 65 years) were treated with a daily 60-mg dose of an isoflavone extract for 1 year. Liver function, sexual hormone levels (total testosterone, estrogen, luteotropic hormone, follicle-stimulating hormone, and dehydroepiandrosterone sulfate), transrectal ultrasonography volumetry of the prostate, PSA level, International Prostate Symptom Score, and International Index of Erectile Function score were recorded at the beginning of the study and every 3 months for 1 year. RESULTS: The average PSA level was 10.16 ng/mL at baseline versus 7.15 ng/mL after 12 months, for a statistically significant reduction of 33% (P <0.019). The mean prostate volume had decreased slightly from 49.3 cm3 to 44.3 cm3 after 12 months (P <0.097). The sexual hormone levels did not change throughout the study. We registered a significant increase in all three liver transaminases after 3 months (P <0.001). The International Prostate Symptom Score showed a mean value of 7.9 at baseline and 6.68 after 12 months (P <0.421). Sexual function was not influenced by the treatment. CONCLUSIONS: Daily oral administration of 60 mg of an isoflavone extract was well tolerated and caused no side effects. The significant increase in liver transaminases and the significant decrease in total PSA levels by >30% indicates that patients, general practitioners, and urologists should be informed about these potential effects of red clover extracts and possibly other phytoestrogens, on liver transaminases and elevated total PSA levels.

PMID: 18308079 [PubMed - indexed for MEDLINE]