

CLINICAL EFFECTS OF TAMOXIFEN ON THE FEMALE UROGENITAL TRACT

Hypothesis / aims of study

Bladder, urethra and vagina are known to be rich in estrogen receptors. Postmenopausal estrogen deprivation can cause symptoms such as urinary incontinence, urogenital atrophy and pelvic organ prolapse. Tamoxifen is a SERM (selective estrogen receptor modulator) and has therefore estrogenic effects on vaginal tissue. Although many studies have assessed the relationships among raloxifene, estrogen, urinary incontinence and pelvic floor relaxation, there are virtually no data regarding tamoxifen. The purpose of this study was to estimate the effect of at least 1 year treatment of tamoxifen on LUTS (lower urinary tract symptoms) including urgency, urinary stress incontinence, and POP (pelvic organ prolapse) in disease-free survivors of breast cancer.

Study design, materials and methods

We conducted a retrospective investigation of female patients between 30 and 79 years of age, using a modified KHQ (King's Health Questionnaire). The questionnaire compared LUTS (lower urinary tract symptoms) including urgency, urinary stress incontinence, and POP (pelvic organ prolapse) before and during tamoxifen therapy. Women were contacted by phone.

The study eligibility criteria required that women had a prior history of nodal negative breast cancer stage I or II, that they be disease free and on no current cancer therapy other than tamoxifen at the time of investigation. Women had to be on tamoxifen treatment for at least one year.

Results

From the 143 women who met the eligibility of the study, 122 were interested in participating and 21 were not interested. The percentage of patients who noticed LUTS during tamoxifen therapy was significant, being 39 women with urgency (32%), 51 women with SUI (stress urinary incontinence) (42%) that started with tamoxifen treatment. Concerning POP there was no significant change. Most of the women had no doubts about the positive effect of tamoxifen for their actual health.

Interpretation of results

Our investigation shows that tamoxifen has significant effects on LUTS but no effect on POP.

Concluding message

Tamoxifen being a SERM (selective estrogen receptor modulator) has well reported estrogenic effects on vaginal tissue (1). Our investigation leads to two possible hypothesis: Either the urinary tract tissue is not sensitive concerning estrogens, or it is sensitive and in this case tamoxifen would act as an antiestrogen. Nonetheless, further investigations are required to establish clinical relevance.

(1) Tamoxifen and proliferation of vaginal and cervical epithelium in postmenopausal women with breast cancer. Eur J Obstet Gynecol Reprod Biol. 80(2) 221-225, 1998