Case Report

Endometrial carcinoma following long term tamoxifen therapy

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ABSTRACT

Tamoxifen in breast cancer can be continued for 10 years with increased benefit but endometrial cancer can develop in treated patients. We report a case of poorly differentiated endometrioid adenocarcinoma, which developed in a woman with history of tamoxifen intake of over five years after breast cancer, who did not undergo any endometrial surveillance. (Rawal Med J 2014; 39:467-469).

Key words: Tamoxifen, endometrial carcinoma, breast cancer.

INTRODUCTION

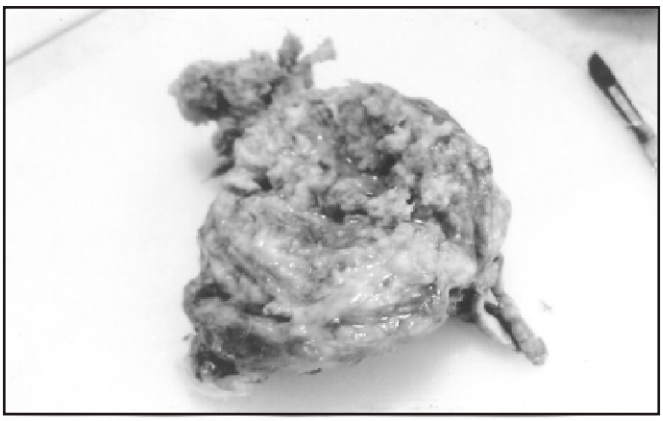
Worldwide, breast cancer is the most invasive cancer in women. In 2008, breast cancer caused 458,503 deaths worldwide. Tamoxifen is a standard adjuvant therapy for women with breast cancer. It belongs to the class of agents known as Selective Estrogen Receptor Modulators (SERMS). It has an antiestrogenic effect on the breast, but acts as a modest estrogen on the endometrium. Since 1989, use of tamoxifen has expanded to include patients with node negative disease and estrogen receptor positive tumors with improved survival in postmenopausal patients.[1] It is also of benefit in preserving bone and reducing the risk of fatal myocardial infarction.[2] Due to its estrogenic effect on endometrium, it can cause a range of endometrial pathologies, including endometrial proliferation, endometrial hyperplasia, endometrial polyps, endometrial carcinoma and sarcoma, particularly if the patient belongs to high risk group.[3]

CASE PRESENTATION

A 58 year-old para 2 woman, postmenopausal for the last 13 years, presented with blood mixed vaginal discharge for 3-4 months, for which she had not consulted any one previously. She had undergone left mastectomy, followed by 3 courses of chemotherapy and 2 courses of radiotherapy, 19 years ago due to infiltrating ductal carcinoma of breast. There was history of breast carcinoma in 2 of her sisters. She was placed on tamoxifen 20 mg/day for 8 years. Her general and systemic examinations were within normal limit.

Per speculum examination revealed hypertrophic cervical lips. On bimanual palpation, anteverted normal sized, mobile uterus with clear fornices was found. Ultrasound examination revealed 10x9 cm heterogeneous, soft mass replacing myometrium in the fundal and body regions. Her pap smear was negative for dysplastic cells. Diagnostic D&C was performed and histopathology revealed poorly differentiated adenocarcinoma.

Fig. Purifying specimen.



Total abdominal hysterectomy, bilateral salpingoophorectomy and omentectomy were performed. Evident lymph nodes were removed from the pelvic area around the bladder and posterior pelvic wall. Per operatively the uterus was found in putrefying state (Fig.). Histopathology confirmed poorly differentiated endometrioid adenocarcinoma. The patient was referred to the oncologist and received first dose of radiotherapy after six weeks but expired before the second dose.

DISCUSSION

There has been an increase in the incidence of tamoxifen associated endometrial cancers in recent years. A review of the literature shows that there have been over 200 cases of endometrial cancer in tamoxifen treated women.[4] Since the endometrial cancers arising in tamoxifen treated patients are often high grade and have a poor prognosis, it indicates that they may have a different basis from those associated with steroidal estrogen treatment. These patients are also more likely to die of the disease.

The incidence of endometrial polyps, hyperplasia and endometrial cancer have been reported to be 5-35%, 4.7-16% and 0.8-5%, respectively.[4] The American College of Obstetricians and Gynecologists recommends that only annual pelvic examination and pap smears are sufficient to rule out endometrial pathology in asymptomatic women.[5] However, only 2% of endometrial pathology and <50% of endometrial cancer present with symptoms at diagnosis.[6] Therefore, endometrial surveillance is recommended for women receiving tamoxifen.[7]

Various methods that can be used for assessment of endometrium include transvaginal ultrasound scan, endometrial sampling or diagnostic hysteroscopy with or without guided biopsy, in addition to pelvic examination and Pap smear.[8] Measurement of endometrial thickness by transvaginal scan is non invasive but the chances of missing the endometrial polyps or early disease are more, even with sonohysterography.[9] In contrast, although diagnostic hysteroscopy is invasive, it can offer both diagnostic and therapeutic interventions at the same time if necessary.[10]

In summary, this report highlights the importance of endometrial surveillance in women with breast cancer who receive tamoxifen as an adjuvant therapy. Such patients need more attention and frequent evaluation of their reproductive organs, especially postmenopausal women, either spontaneous or chemotherapy induced, as these women are at higher risk of developing endometrial cancer as compared to premenopausal women. There is a pressing need to formulate a plan of follow up in both low and high risk patients and aggressive investigation should be carried out in cases of vaginal bleeding in all patients treated with tamoxifen to ensure early diagnosis and management thus improving patient survival.

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