## Evaluation of the endometrium of women who used tamoxifen: correlation between ultrasonographic, hysteroscopic, and histological findings

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Objective: Tamoxifen (TAM) has been increasingly used for an extended period, longer than 5 years. Secondary endometrial thickening is a common finding, unrelated to disease. The main objective was to evaluate the correlation between abnormal echographic and hysteroscopic findings of endometrial study with clinical manifestations and histological diagnosis in women with a history of breast cancer and the use of TAM. **Methodology:** This is a retrospective study in which medical records of women who underwent hysteroscopy due to endometrial alterations at ultrasonography (US) or abnormal uterine bleeding (AUB), with a history of breast cancer and use of TAM, were reviewed. Patients on current or previous treatment for breast cancer and use of TAM, symptomatic or not, were also evaluated with US and referred to hysteroscopy if endometrial thickness ≥9 mm, intracavitary imaging, or AUB. For data analysis, only postmenopausal patients were included (n=50). A control group was formed by postmenopausal women without a history of breast cancer, with endometrial thickness  $\geq$ 5 mm, intracavitary imaging, or AUB (n=47). It was approved by the ethics committee (CAAE=26397219.4.0000.5149). **Results:** US had good sensitivity in the case group (94.1%) and very unsatisfactory specificity (15.2%) in relation to the final histological result, with 63.6% of false-positives. Hysteroscopy had also high sensitivity (94.1%) and higher specificity than US (72.7%). The percentage of false-positives was 36.0%. Older age was related to altered anatomopathological findings (p=0.036). In the control group, US was also less effective compared with hysteroscopy, but with more cases with altered histopathology. Conclusion: The US correlation with the hysteroscopic image and histology in women using TAM is poor. Although hysteroscopy is more accurate, it should not be used as a screening method either. US and hysteroscopy showed similar results in the control group. Outpatient hysteroscopy was very tolerable, with or without biopsy.

Keywords: tamoxifen; endometrium; ultrasonography; hysteroscopy; hystology.