assessment of the invasiveness of endometrial cancer. It is also important in treatment which is based on the use of anti-oestrogens.

2. Objective

To evaluate ER expression of type α and β1 in endometrial cancer in relation to normal endometrium, as well as the evaluation of ER expression in relation to clinical and histopathological parameters.

3. Materials and methods

Samples of control normal endometrium ($n=2$) and endometrial adenocarcinomas obtained during surgical procedures ($n=6$) were immediately frozen at −80°C. RNA was isolated by TRIZOL reagent (GIBCO-BRL) according to the manufacturer's instructions. ERα and β1 were measured by transcribing the mRNA into cDNA by use of reverse transcriptase (RT), followed by amplification of the cDNA using polymerase chain reaction (PCR). Aliquots of mRNA were transcribed into cDNA by incubating in 20 μl of 10 mM Tris-HCL (pH 8.3), 50 mM KCL, 5 mM $MgCl_2$, 1 mM dATP, 1 mM dCTP, 1 mM dTTP, 5 μg oligo$(dT)_{18–20}$, 20 U RNAsin, 200 U murine moloney leukaemia virus (M-MLV) RT for 30 min at 37°C. The reaction was then heated to 95°C (5 min) and cooled to 4°C. ER cDNAs were amplified using specific primers according to the published sequence.

4. Results

A decrease of ERβ1 expression has been observed in all cases of endometrial cancer, while ERα decreased in undifferentiated tumours (histological degree of differentiation: G2 and G3). In well-differentiated tumours (G1) the ERα type increased.

5. Conclusion

The hormonally-dependent cancerous tissue showed a general lowering of ER expression. An increase in the ERα expression in the earlier (well differentiated) types of endometrial adenocarcinoma can be viewed as a positive prognostic factor. Further studies should indicate whether, in analogy with breast cancer, the increase or the unchanging levels of ERs can be viewed as an indication to treat endometrial adenocarcinoma with SERMs.

Reference

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Abstract: P25

The presence of (sub)endometrial cysts is not a suspicious sign in postmenopausal patients with breast cancer who are treated with tamoxifen

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1. Objective

To study the clinical relevance of (sub)endometrial cysts in patients being treated with tamoxifen.

2. Materials and methods

The prospectively collected ultrasonographic data from 200 consecutive patients without endometrial malignancy were compared with the findings in 7 consecutive patients with endometrial malignancy, who had been referred for endometrial assessment. The proportion of patients with endometrial cysts was studied in both groups, based on ultrasonographic or histopathological findings.

3. Results

In 49% of all patients who are treated with tamoxifen (sub)endometrial cysts were found at ultrasonography. At histology these cysts are cystically dilated endometrial glands, often in the context of endometrial cystic atrophy or adenomyosis. Only 1 of the 7 patients with endometrial malignancy had endometrial (14%) and 1 had subendometrial (14%) cysts, whereas 29 (71%) of the 41 patients with benign endometrial polyps had anecheoic endometrial cysts. All patients with endometrial malignancy had hyperechoic or inhomogeneous endometrium and 1 patient had ascites.

4. Conclusion

The presence of (sub)endometrial cysts is not a suspicious sign in postmenopausal patients with breast cancer who are treated with tamoxifen. It is a typical finding in patients on tamoxifen, but it may hamper an accurate ultrasonographic endometrial assessment. Sonohysterography is helpful in difficult cases.

Abstract: P26

Differences in oestrogen receptor α variant messenger RNAs between normal human breast tissue and primary breast carcinomas

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1. Introduction

The presence of high levels of human oestrogen receptor alpha (hERα) is an important predictor of a favourable response of breast cancer patients to tamoxifen therapy. However, approximately 40% of all hERα-positive tumours do not respond to tamoxifen therapy. hERα variant mRNAs have been described extensively for breast cancer patients and are hypothesised to contribute to tamoxifen resistance. However, some studies have shown that the presence of hERα variants is not limited to malignant breast tissue.

2. Objective

In this study, we evaluated the differences in prevalence and functional activity of hERα between normal breast tissue and primary breast carcinoma using a functional assay in yeast (hERα-FASAY).

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