Abstract: P5

Oestrogen and progesterone receptors in ovarian cancer: correlation with clinico-pathological features and activity of plasminogen activation system

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1. Introduction

The possibility of the application of steroid receptor modulators in the treatment of ovarian cancer patients still remains disputable. In this disease, possible and theoretically predictable hormone sensitivity may coincide with high metastatic potential and invasiveness in the surrounding tissues.

2. Object

This prompted us to study the relationships between oestrogen (ER) and progesterone receptor (PR) expression in ovarian cancer tissues and the presence and levels of some major components of plasminogen activation system in the same tumours. In parallel, ER and PR expression was correlated with the main clinico-pathological characteristics of ovarian cancer.

3. Materials and methods

71 primary ovarian cancer patients aged between 23 and 76 years (median: 54 years; mean: 52.3±2.1) were included in the study. ER and PR were determined in tumour cytosols by the standard radioligand dextran-coated charcoal (DCC) assay. Enzyme-linked immunosorbent assay (ELISA) kits developed by T. Benraad's group (Nijmegen, The Netherlands) were used for the detection of urokinase-type and tissue-type plasminogen activators (uPA and tPA) and their type 1 inhibitor (PAI-1) concentrations in the cytosols.

4. Results

ER were found in 33% of the tumours, PR in 71%. No correlations were revealed between ER or PR status and levels in ovarian cancer and tumour morphology, clinical stage of the disease, patients' age and menopausal status. Meanwhile, PR levels positively correlated with tPA concentrations ($R = 0.61$, $P < 0.05$) and negatively correlated with uPA levels ($R = 0.37$, $P < 0.01$) in the tumour.

5. Conclusions

No associations between the components of plasminogen activation system and ER were found. Thus, PR, but not ER expression seems to be inversely associated with the invasive and metastatic potential of ovarian cancer.

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