

## Abstract: P12

# IUMPA — the modulation of the oestrogen receptor level of endometrial carcinoma by the intrauterine application of medroxyprogesterone acetate

A.J. Kowalski \*, J. Suzin

*1st Department of Gynaecology and Gynaecologic Oncology, Medical University of Lodz, Poland*

## 1. Study

The object of work was to estimate the degree of anti-oestrogenic activity of medroxyprogesterone acetate (MPA) following direct insertion into the uterine cavity in relation to the initial level of the oestrogen receptors (ERs) in endometrial carcinoma (EC).

## 2. Materials and methods

57 women with EC (stage Ia and Ib) of the histological type: adenocarcinoma endometrioides were subjects of this study. In the first step, a hysteroscopic biopsy of EC was taken, then the drug delivery system IUMPA was inserted into the uterine cavity for 7 days. After this time, total hysterectomy, and then microbiopsy from carcinomatous tissue was performed. Receptor status in the EC tissue specimens was examined using an immunoenzymatic test.

## 3. Results

In all patients a highly significant decrease in the level of ER occurred. Depending on the initial level of ER the patients were divided in following groups: 1: 1.0–50.0; 2: 50.1–100.0; 3: 100.1–200.0; 4: 200.1–400.0 fmol/mg protein. In the first group, there was a 64% decrease in the initial level of ER; in the second group, a decrease of 80%; in the third group, a 90% decrease; in the fourth group, a 94% decrease.

## 4. Conclusions

The percentage of decreasing ER concentration after MPA treatment is positively correlated to the initial level of ER. In every case MPA was able to block ER only minimally suggesting that the total reduction of ER by MPA may be impossible.

## Acknowledgements

Grant of The State Committee of Scientific Research: 'IUMPA — Intrauterine Medroxyprogesterone Acetate' n. 4P05E 061 10.

---

\* Corresponding author. Tel.: +48-42-684-4603; fax: +48-42-682-8639.

E-mail address: [ajk@psk2.am.lodz.pl](mailto:ajk@psk2.am.lodz.pl) (A.J. Kowalski).