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## USING OF HYSTEROSCOPY IN THE DETERMINATION OF STATE OF THE ENDOMETRIUM IN PATIENTS SUFFERING FROM HYPERPROLACTINAEMIA

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ИСПОЛЬЗОВАНИЕ ГИСТЕРОСКОПИИ В ОЦЕНКЕ СОСТОЯНИЯ ЭНДОМЕТРИЯ У БОЛЬНЫХ  
С ГИПЕРПРОЛАКТИНЕМИЕЙ

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В статье приведены результаты исследования эндометрия у 26 пациенток с функциональной гиперпролактинемией. Доказана эффективность использования гистероскопии в оценке состояния эндометрия и выявления внутриматочной патологии у данной категории больных.

**Ключевые слова:** гистероскопия, гиперпролактинемия, эндометрий.

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The results of research of the endometrium in 26 patients with functional hyperprolactinaemia are represented in the article. The aim of this study was the determination of state of endometrium in women with functional hyperprolactinaemia with the help of hysteroscopy and subsequent morphological study, obtained from the material from uterine cavity.

It is well-proven efficiency of the use of hysteroscopy in the determination of state of the endometrium and exposure of intrauterine pathology at this category of patients. In 46.2% of patients with functional hyperprolactinaemia endometrial pathology was revealed with the help of hysteroscopy. Correlation between hysteroscopy and histological diagnosis is observed in 92.9% of cases. In women with functional hyperprolactinaemia the main changes in the endometrium results from the insufficient level of progesterone because of the absence of valuable corpus luteum caused by anovulation.

**Key words:** hysteroscopy, hyperprolactinaemia, endometrium.

Hyperprolactinaemia is one of the most common neuroendocrine disorders. The incidence of hyperprolactinaemia during the examination of gynecologic patients ranges from 11 to 47% according to the data of different

authors [1–3]. After screening the patients suffering from infertility, hyperprolactinaemia was detected in 18.9% of cases, and with endocrine disorders of the menstrual cycle and endocrine infertility hyperprolactinaemia

was detected in 40% of cases [4–6]. There is a great number of works dedicated to the state of endometrium in women with hyperprolactinaemia. In 1937, J. Rock and M. K. Bartlett were the first who proposed to deter-



mine the phases of ovarian cycle with the help of endometrial biopsy.

The determination of state of endometrium in women with functional hyperprolactinaemia was **the aim** of our study. It was conducted with the help of hysteroscopy and subsequent morphological examination of the material obtained from the uterine cavity.

### Materials and Methods of Research

There were 26 women in main group with functional hyperprolactinaemia aged from 21 to 38 years under our supervision in the Lviv Regional Clinical Perinatal Center. 12 patients were in the control group. They were preparing for *in vitro* fertilization because of tubal infertility (without hormonal abnormalities).

We used the general clinical tests, hormonal examinations (prolactin, FSH, LH, testosterone, progesteron, estradiol), tests of functional diagnostics, ultrasound of genitals, magnetic resonance imaging and functional tests with metoclopramide. Pituitary adenoma, hypothyroidism and macroprolactinaemia were excluded in all patients. Hysteroscopy was performed using the hysteroscope "Karl Storz" on the 18th–22nd day of menstrual cycle.

### Results and their Discussion

Menstrual disorders were observed in 16 (61.5%) patients. Among them 31.3% of women presented complaints of amenorrhea, 68.8% of women presented complaints of oligomenorrhea. With the help of functional diagnostics tests anovulatory cycles were found in 30.8% of patients and luteal phase defect — in 46.2% of patients. Miscarriage in anamnesis occurred in 6 women (23.1%), galactorrhoea — in 8 (30.8%) patients. Primary infertility was in 38.5% of cases, secondary infertility was in

23.1% of cases. Mean prolactin level was (784±56) mU/l.

During performing hysteroscopy endometrial polyps were diagnosed in 38.5% of women, endometrial hyperplasia — in 15.4%, the structure of endometrium corresponded to the phase of menstrual cycle in the remaining patients. In addition submucosal uterine fibroids were identified in 3.8% of women, and an incomplete uterine septum and intrauterine adhesions were identified in 7.7%.

During morphological studies intraoperative diagnosis of endometrial polyps with different structures was confirmed in 100% of the cases, endometrial hyperplasia was diagnosed in 3 (11.5%) women. These changes specify on a fairly constant estrogen saturation of the body. The absence of histological signs of secretory transformation of endometrium results from the insufficient level of progesterone because of the absence of valuable *corpus luteum* caused by anovulation. All patients in the control group had such peculiarities: epithelial cells in the study material arranged loosely, had large nuclei, the structure of chromatin was fine-grained, the cytoplasm of cells was abundant, fine-grained, large vacuoles near nuclei were visible in cells. These peculiarities tell about secretory phase (ovulatory cycle).

### Conclusions

Thus, hysteroscopy is a highly informative and safe method of diagnosis and treatment of intrauterine pathology. In 46.2% of patients with functional hyperprolactinaemia endometrial pathology was revealed with the help of hysteroscopy, and was confirmed in 92.9% of cases histologically, that allowed to optimize the therapeutic strategy.

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