АКТУАЛЬНІ ПИТАННЯ
ТЕОРЕТИЧНОЇ ТА КЛІНІЧНОЇ МЕДИЦИНИ
Topical Issues of Theoretical and Clinical Medicine
**Conclusion:** Vulvovaginal atrophy is a common disorder in menopausal women, however vulvovaginal atrophy (VVA) is an underreported condition associated with decreased estrogenization of the vaginal tissue. The knowledge and awareness of current aspects of its diagnosis, treatment and prevention will be able to render timely aid to patients and to improve their quality of life.

After using the above methods of diagnosis and treatment, it can be said that the use of hormonal therapy and laser therapy is effective and can be used on women of all ages.

**THE USE OF LETROZOLE IN OVULATION INDUCTION AND OVARIAN HYPERSTIMULATION**

Zagrebelna A., Feschenko L., students, gr. LS-301  
Scientific supervisor – Kalashnyk N.V.

Sumy State University, Department of Obstetrics and Gynecology

The fertility of a couple depends upon several factors in both the male and female. Ovulation induction involves the use of medication to stimulate development of one or more mature follicles in the ovaries of women who have anovulation and infertility. Letrozole, an aromatase inhibitor, has been demonstrated to be effective as an ovulation induction and controlled ovarian hyperstimulation agent.

**Introduction.** The drug works primarily by competitively inhibiting the binding of estradiol to its receptor in the hypothalamus, thereby releasing the hypothalamus from negative inhibition and allowing increased release of follicle stimulating hormone from the pituitary.

Letrozole had been used in anovulatory women with great success. The drug has side effects far milder and less frequent than others.

**Materials and Methods.** This study is a retrospective cohort analysis with data extracted from medical record. Logistic regression analysis were performed to determine the importance of each predictor variable and its covariates. Terms remained in the equation as significant if $P<0.15$.

**Results.** A total of 866 treatment cycles utilized a five-day dose of letrozole. 33 were administered 5 mg daily, 80 - 7.5 mg daily, 18 - 10 mg daily, and 735 - 12.5 mg daily. The number of predicted ovulations was significantly less for doses of 7.5 mg/day or less compared to doses of 10 mg/day or more ($P < 0.001$). This remained true when the data were filtered to include only first cycles on a given dose ($P = 0.033$). No significant differences were seen for pregnancy rates among doses.

**Summary.** Letrozole, used in doses greater than those commonly employed, can produce enhanced follicular growth without detrimental effects upon the endometrium. Further study is clearly needed, including estradiol and androgen levels. Randomized trials comparing high-dose to low-dose administration would help determine the optimal starting dose for this medication in varying diagnoses.