



without ICI ( $n=20$ ). Term of realization of Doppler research was on the average  $25,04 \pm 4,72$  weeks of pregnancy in a basic group and  $22,95 \pm 3,05$  in control group. The authentic increase IR -  $0,63 \pm 0,07$ , PI -  $1,15 \pm 0,24$  and SDC -  $2,80 \pm 0,53$  ( $p < 0,05$ ) in small-sized arteries of cervix uterus in second half of pregnancy for recursive gravid of a basic group in matching with monitoring group is revealed: IR -  $0,55 \pm 0,05$ , PI -  $0,88 \pm 0,15$ , IBC -  $2,20 \pm 0,57$ . Allowing, that in second half of pregnancy (after 20 weeks) the numeric values of indexes of vascular resistance are stable.

**Conclusions.** All above listed methods have allowed to diagnostics of ICI at 13-15 of weeks of pregnancy for 7 % patients, at 52 %, in 21 - 30 weeks - for 41 %. ICI was diagnostics by us about 20 weeks of gestation. The our data can be used for diagnostic ICI for recursive gravid of the women after 20 weeks of gestation.

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### **ANTIOXYDATIVE MELATONIN'S EFFECT IN THE OVARIAN FOLLICLE**

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**Introduction.** Melatonin, a hormone mainly synthesized in the pineal gland, has multiple effects on a number of different physiological processes related to circadian rhythms and reproduction. It has been believed that melatonin regulates ovarian function by the regulation of gonadotropin release in the hypothalamus-pituitary gland axis via its specific receptors. Human preovulatory follicular fluid also contains melatonin, but its physiological role in the ovary has not been understood, it is possible that melatonin is the most effective antioxidant in the follicle working to reduce the oxidative stress in the oocyte. Oxidative stress is a noticeable factor of ovarian damage. It has to be limited in order for a good embryo to be produced.

**Aim.** The aim of the investigation was to study the concentration of melatonin and isoprostane-8 in blood and follicular fluid of healthy and infertile females.

**Materials and methods.** 60 females, who had underwent the stimulation of ovulatory process for in vitro fertilization (IVF), were examined. Healthy donors of oocytes were enlisted to investigation as a control group. Infertile patients were divided into 2 groups. Females from the 1<sup>st</sup> group received melatonin treatment before removing oocytes from the ovaries and females from the 2<sup>nd</sup> group did not receive it. The levels of melatonin and isoprostane-8 in blood serum and follicular fluid of females were measured by ELISA.

**Results.** It was found that quantity and quality of oocytes depended on the level of melatonin in blood serum and follicular fluid. Number of oocytes was higher in females with previous melatonin treatment compared to other infertile patients. Concentration of melatonin in blood serum was 2.5 times lower and concentration of isoprostane-8 was 1.5 times higher in infertile females before and after stimulation, respectively. It indicated the presence of oxidative stress in ovarian follicles of infertile females. Melatonin treatment removed differences between healthy and infertile patients. Decreased level of melatonin in blood serum of healthy donors after stimulation of ovulatory process might be caused by its higher uptake by the ovary accompanied by elevated level of this hormone in follicular fluid.

**Conclusions.** Melatonin reduces oxidative stress as an antioxidant. Clinical study demonstrates that melatonin treatment of infertile females increases number of mature



ovarian follicles and intra-follicular melatonin concentrations and reduces intra-follicular oxidative damage, which should ameliorate fertilization and pregnancy rates.

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**PSYCHOEMOTIONAL ASPECTS IN WOMEN WITH A SYNDROME OF**  
**SURGICAL MENOPAUSE.**

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**Introduction.** In population among women of reproductive age the percent of women who underwent hysterectomy with or without adnexectomy for whatever reasons has been increased recently. Series of researches, done both in our country and abroad, prove a wide frequency and a severe course of a syndrome of surgical menopause (SSM), with more expressed manifestations both vegetovascular and psychoemotional disturbances after hysterectomy than after a hysterectomy without removal of ovaries. Only a few publications show the results of studying the sexual function in women and psychological adaptation after hysterectomy. Data about peculiarities of sexual function depending on hysterectomy volume are small and ambiguous, that's why the present study is actual.

**Aim.** To study the peculiarities of SSM course on the basis of psychopathologic and sexual disturbances in order to improve the algorithms of SSM correction.

**Materials and methods.** There have been examined 100 women at the age of 40-55 years old, after a hysterectomy, they were divided into 4 groups (25 women in each) depending on a volume of operative treatment. I group included women with supravaginal hysterectomy with appendages. II group – supravaginal hysterectomy without appendages. III group – hysterectomy with appendages. IV group – hysterectomy without appendages. The definition of peculiarities of SSM course was carried by clinical investigation with calculation of an index of Kuperman's index and menopause index (MPI) in E.V. Uvarova and V.P. Smetnik's modification. An assessment of an emotional state was conducted by an anxiety level detection according to S.D. Spilberger's dial in J.A. Hanina's modification. The study of sensomotor reactions and attention were done by means of correction assay. Peculiarities of sexual function after operation were determined by anonymous questionnaires and were estimated by Sabbatsberg Sexual Self-Rating Scale. Results have been assessed by methods of variation statistics with usage of up-to-date standard computer programs.

**Results.** Psychoemotional disturbances in a greater degree were expressed in I and III groups. However, during the first 6 months there have been larger expression of psychoemotional disturbances in patients after hysterectomy (III group – 81.77 %; IV group – 71.25 %), than after supravaginal hysterectomy (I group – 87.88 %; II – 53.76 %). Larger expression of psychoemotional disturbances after hysterectomy than after supravaginal hysterectomy was confirmed also by a high index of level both personal and reactive anxiety in women of appropriate groups during the whole period of observation. In the structure of psychoemotional disturbances of SSM an asthenic and depressive syndrome prevailed whereas cenestophobic and hysterical syndromes became perceptible rarely and preferentially in the accented people. So a serious degree of psychoemotional disturbances after hysterectomy was watched preferentially in women accented on sensitive and hysterical types who indicated in the questionnaires a perception of the given volume of the operation as sexuality and femininity losses as a whole. Analysis of anonymous



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