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METABOLIC DISORDERS IN WOMEN WITH DYSFUNCTION OF THE HYPOTHALAMUS IN REPRODUCTIVE AGE

Metabolic disorders at 185 women with DH are studied. The results are comparable with similar at women without endocrinal disorders. At women with DH the increase in an index of body mass, abdominal type of obesity is marked. Against barrenness menstrual cycle disorders, lowering of progesterone level in the 2 phase of the menstrual cycle are revealed. At every fourth surveyed glucose tolerance disorders, insulin resistance and LPVP decrease are marked. Timely diagnostics and correction of metabolic disorders will allow to improve the reproductive prognosis.

Keywords: dysfunction of the hypothalamus, metabolic disorders.

Introduction

Dysfunction of the hypothalamus (DH) in women of reproductive age leads to anovulation, hyperplasia of the endo and myometrium [1,3]. In the development of metabolic disorders in women with AT play a major role of hyperinsulinemia [4]. In 1990, metabolic disorders and diseases, developing in patients with obesity, were united in the concept of metabolic syndrome (MS). MS - a combination of metabolic disorders, is a factor of early atherosclerosis and cardio - vascular complications. The main symptoms and manifestations of MS are: abdominal obesity, insulin resistance, dyslipidemia, hypertension, impaired glucose and lipid metabolism [2,4]. Currently, the concept of MS does not include violations in the reproductive sphere. In this regard, we consider the disease as a DH with metabolic disorders. In 60.0% of women with infertility DH noted that due to anovulation or luteal insufficiency [3,5]. Violations of the reproductive system in conjunction with metabolic disturbances lead to the development of hormone-dependent gynecological disease, type 2 diabetes and endothelial dysfunction. In this regard, only the correction of reproductive disorders does not lead to permanent restoration of health. On the background of metabolic abnormalities during pregnancy causes such complications as miscarriage, placental insufficiency and preeclampsia. Therefore, the diagnosis of metabolic disorders should be undertaken in all women with AT for their timely correction. The purpose of the study is to examine the metabolic disorders in women with DH for timely correction and improvement of the reproductive prognosis.

Materials and methods

The study included 185 women with a wall (study group) and 20 - without endocrine disorders (control group). Group of comparable age. For the diagnosis of metabolic and reproductive disorders were clinical research methods: a body mass index (BMI) was calculated using Brey G. (1997), the distribution of body fat was determined by calculating the ratio of OT / OB, estimate the severity of androgenization was conducted by counting the number on the scale girsutnogo Ferriman Golvey, blood pressure measurement. Laboratory Methods included determination of fasting blood glucose, glucose tolerance test (TSH) with 75 g glucose load was determined by the meter company Johnson & Johnson (USA), the definition of high-density lipoprotein cholesterol (HDL-C) was performed on the biochemical multichannel analyzer Ehpress -550, firms «Ciba-Corning» (UK), study the content of immunoreactive insulin (IRI) was performed on an empty stomach with the use of test systems IBOH (Belarus), on insulin resistance was evaluated by index Caro F. (Fasting glucose / IRI). Progesterone in serum on day 21 of the menstrual cycle was determined by ELISA using a set of RIO-T4-NG IBOH (Belarus). Statistical data processing performed on a personal computer using Microsoft Excel software and the software package Statistica for Windows v.6.0. All data processed by the method of variation statistics. For each quantitative parameters were determined mean value (M) and the error of the mean (m). Were considered statistically significant differences at $p \leq 0,05$ (95% significance level) and $p \leq 0,01$ (99% significance level).

Results and discussion

The average age of women from the main group was $27,9 \pm 3,4$ years. Body Mass Index $32,4 \pm 2,8$ kg/m² in the control group $22,4 \pm 1,4$ kg/m² ($p \leq 0,05$). Of the 185 women from the main group of overweight was diagnosed in 74 (40,0%), obesity I degree in 68 (36,7%), II degree in 34 (18,4%), III degree in 28 (15,1%) subjects. Abdominal type of obesity was at 78,9%. In the study group, the average ON / ABOUT $0,89 \pm 0,03$, in the comparison group $0,76 \pm 0,05$ ($p \leq 0,05$). In the studied groups of women girsutnoe number on the scale Ferriman Golvey did not differ significantly and amounted to $7,2 \pm 0,6$ and $5,4 \pm 0,8$ in the groups respectively ($p \geq 0,05$). Androgen dermopathy in the study group found in all cases, including in 54 (29,18%) acne, in 185 (100%) strii. In 98 (52,9%) women from the main group of clinical manifestations were headache and increased blood pressure to 140/90 mm Hg, of whom 43 patients increased blood pressure was first diagnosed in our study. The average age of menarche in main group $11,8 \pm 0,4$ years. The average age of menarche in girls of the Amur region $13,3 \pm 0,6$ years. In 104 (56,2%) women were menopausal disorders, including type opsomenorei in 78 (75,0%) and proyomenorei in 26 (25,0%). Primary sterility was found in 46 (24,9%), secondary - in 139 (75.1%) women from the main group. In 98 (52,9%), pregnancy outcomes were birth, in

42 (22.7%) abortion, and 21 (11.4%), spontaneous miscarriage, in 24 (12.9) Missed miscarriage. Our data confirm other studies that have noted the menstrual function, characterized opsomenoreey and persistent anovulation in women with overweight and obesity [3]. The main group of women impaired glucose tolerance was detected in 26 (14.05%), hyperinsulinemia in 49 (26.4%). The level of serum insulin in the study group was $18,9 \pm 1,49$ MS U / ml, in the comparison group $5,6 \pm 0,7$ MC U / ml ($p \leq 0,05$). Insulin resistance in 49 women from the main group was confirmed by lower index Caro F. up to $0,28 \pm 0,02$. In women, the main group level L P V P was $1,19 \pm 0,07$ mmol / l in the control group $1,30 \pm 0,03$ mmol / l ($p \geq 0,05$). In this gipalfaholisterinemiya was noted in 4 women, each of the main group. According to research by E. A. Sosnova [4], insulin resistance and compensatory hyperinsulinemia, in combination with abdominal obesity and atherogenic dyslipidemia lead to a breach of steroydogeneza in the ovaries and chronic anovulation. This is confirmed by our further studies. Progesterone levels in the study group was $23,17 \pm 1,23$ nmol / l in the control group $89,01 \pm 4,67$ nmol / l ($p \leq 0,001$). The main principles of treatment of metabolic disorders in the study group, women were integrated and individual approach, with an endocrinologist. The mainstay of treatment was reasonable and balanced diet, changing lifestyles, increasing physical activity and energy expenditure. Multifactor pathogenesis DH involving carbohydrate, lipid metabolism, reproductive disorders causes low efficiency of therapy, the basis of which is a lifestyle change, and requires the use of drugs. To correct metabolic abnormalities and improve tissue sensitivity to insulin 75 (40.5%) women were treated Siofor dose of 1500 mg per day. The course of treatment was 6 months. In 92 (49.0%) women from the main group without disrupting tissue insulin sensitivity correction of body weight was carried out centrally acting anorectics drug sibutramine (Merida) 10-20 mg per day. The course of treatment was 6 months. Simultaneously, 104 (56.2%) women are the main group carried out the correction of the menstrual cycle of combined oral contraceptives.

Conclusions

Women with DH there is an increase in body mass index, abdominal type of obesity. On the background of infertility found menstrual irregularities, decreased progesterone levels in the 2 phase of the menstrual cycle. Every fourth of the survey indicated impaired glucose tolerance, insulin resistance and lower HDL. Thus, women with metabolic disorders identified by the DH is one of the causes of reproductive disorders, timely diagnosis and correction of these disorders will improve the reproductive prognosis.

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FREQUENCY OF THE METABOLIC SYNDROME AND ITS CLINICAL VARIANTS AT PATIENTS WITH THE VERIFIED CORONARY ATHEROSCLEROSIS IN YAKUTIA

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By results of research it is shown that atherosclerotic lesion of coronary arteries, first of all, is connected with metabolic syndrome, arterial hypertension and dislipidemia are one of leading components of metabolic syndrome in the surveyed ethnic groups.

Keywords: coronary atherosclerosis, metabolic syndrome.

INTRODUCTION