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## Features of the Pathology of the Reproductive System in Pubertal Patients with Hypothalamic-Pituitary Dysfunction

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**Annotation:** The health of the younger generation is of particular importance due to the fact that it is the reproductive and social potential of society. The reproductive potential of modern adolescent girls is very low due to the high overall morbidity. Modern girls are 15% more painful than boys; 70% suffer from chronic diseases of the gastrointestinal tract, respiratory system. Body weight deficiency is observed in 17% of schoolgirls. Only 14% of children can be considered completely healthy in accordance with generally accepted norms.

Girls born to women with HS are significantly more likely to have pathology of the reproductive system than children from healthy mothers.

It is known that HS in 60% of cases manifests a violation of the menstrual cycle. For a long time it was believed that a doctor should not specifically engage in the normalization of menstrual function, as it should spontaneously recover, as soon as the diencephalic dysfunction is eliminated. The truth of this provision is subject to revision, since in practice, even after successful treatment of patients with HS, the characteristics and rhythm of the menstrual cycle still differ from the norm for a long time. In addition, in some cases, HS is the initial manifestation of the metabolic syndrome. In connection with the above, it is urgent to develop measures aimed at preserving the reproductive potential of girls, optimizing approaches to the diagnosis, treatment and prevention of hypothalamic syndrome and endometrial hyperplastic processes.

**Key words:** Hypothalamic syndrome, reproductive, puberty.

**Purpose of the work:** To reduce the frequency of reproductive system disorders in girls suffering from hypothalamic syndrome of puberty by offering measures for secondary prevention of gynecological pathology.

**Material and methods:** To identify the frequency of somatic pathology accompanying the hypothalamic syndrome of puberty; to determine the prognostic factors affecting the formation of the reproductive system of girls in the presence of hypothalamic syndrome of puberty. To determine the indications for hysteroscopy in patients with recurrent dysfunctional uterine bleeding of puberty on the background of hypothalamic syndrome. To propose ways of restoring the reproductive system in girls suffering from hypothalamic syndrome and measures of secondary prevention of predicted disorders.

**The results of the study:** In group 1, this indicator increases with age, and in group 2, on the contrary, it decreases. Correlations of the average ovarian volume in the general group were revealed:

1. — direct dependencies: with menstrual cycle disorders by the type of opsomenorrhea in the anamnesis ( $g=0.24$ ,  $p<0.02$ ), with the duration of menstrual function ( $g=0.21$ ,  $p<0.04$ ), with height and body weight ( $g=0.24$ ,  $p<0.02$ );
2. — Inverse relationship — with a history of therapy with combined oral contraceptives ( $g=-0.21$ ,  $p<0.04$ ).

A hysteroscopic examination was performed in 18 patients of group 1 who suffered from recurrent uterine bleeding in order to exclude organic pathology of the endometrium and determine further treatment tactics. It should be noted that during ultrasound examination conducted before hysteroscopy, convincing data for the presence of organic pathology of the endometrium were not obtained. The study of the hormonal background did not reveal any significant deviations.

Pathological changes according to hysteroscopy were found in 16 patients out of 18 ( $76.2\pm 9.3\%$ ):

-Endometrial hyperplasia - in 14 ( $66.6\pm 10.3\%$ ), - signs of chronic endometrial inflammation in isolation — 3 ( $14.2 \pm 7.6\%$ ).

There were no signs of hyperplastic endometrial processes in 3 patients ( $14.2\pm 7.6\%$ ), their histological conclusion was indifferent ( $9.5\pm 6.3\%$ ) and atrophic endometrium ( $4.76\pm 4.6\%$ ).

G.M. Savelyeva and V.N.Serov (1980) believe that endometrial hyperplasia in combination with hypothalamic disorders is a precursor of the endometrium at any age. The risk of malignancy of hyperplastic processes increases with metabolic disorders caused by extragenital pathology (obesity, violation of carbohydrate and lipid metabolism, disorders of the hepatobiliary system), concomitant pathology of the endometrium (E.M. Vikhlyeva, 1987). This extragenital pathology usually accompanies hypothalamic syndrome.

The presence of signs of endometrial hyperplasia was the reason for the appointment of prolonged hormone therapy in a cyclic mode. When prescribing therapeutic regimens, we were aware that prolonged use of COCs during the formation of menstrual function entails the danger of disabling the function of our own endocrine glands due to inhibition of FSH and LH activity of the pituitary gland. In this regard, the use of pure progestogens was recommended for the prevention of recurrent uterine bleeding after stopping them with the help of low-dose combined oral contraceptives.

When studying the correlations between the pathological changes detected during endometrial biopsy and various examination parameters, it was found:

- a positive relationship between the duration of menstrual function and the presence of glandular-cystic hyperplasia of the endometrium ( $g=0.55$ ,  $p<0.02$ ), as well as between the presence of glandular-cystic hyperplasia endometrium and thickening of the ovarian capsule during ultrasound examination ( $g=0.48$ ,  $p<0.04$ );
- A negative correlation was found between the presence of an endometrial polyp and treatment with combined oral contraceptives ( $g=-0.47$ ,  $p<0.03$ ); between the presence of a bicornular uterus and a normal menstrual cycle in patients after discharge from the hospital ( $g=-0.46$ ,  $p<0.06$ );

Therapy of menstrual cycle disorders in patients with hypermenstrual syndrome consisted of 3 consecutive stages:

1. — stops bleeding;
2. — prevention of recurrent bleeding;
3. - Rehabilitation course of treatment aimed at normalization of the hypothalamic-pituitary axis of regulation of menstrual function.

17 of the examined patients were hospitalized with hormonal disorders, disorders of the hemostasis system and uterotonic circulation. These are patients who have revealed asymmetric and defective variants of Mk1. The patients underwent hormone therapy for hemostasis after the therapy had no effect. 10 of them received combined oral contraceptive pastes, 7 - progestogens. Hormonal hemostasis was detected in 19 patients with blood clotting disorders (10 patients had blood clotting, 5 had progestogen)

### Conclusions:

The group of patients with hypothalamic syndrome is characterized by a high degree of somatic pathology:

The reproductive status of girls with hypothalamic syndrome in combination with menstrual function disorders is characterized by a number of features:

- Menstrual cycle disorders occurred immediately after menarche in 85% of cases, in 15% of cases - 3-4 months after menarche 13.;
- hypermenstrual syndrome was observed in 72% of cases, hypomenstrual - in 28% of cases.
- recurrence of uterine bleeding in patients with hypothalamic syndrome was registered in 46.1% of cases;
- Endometrial hyperplasia was observed in 66.6% of cases in patients with recurrent dysfunctional bleeding.

The ILO indicates that the following cases are leading (in terms of importance):

- recurrent dysfunctional uterine bleeding,
- hereditary burden of dysfunctional uterine bleeding,
- abnormal development of the uterus. An indicator of hysteroscopy and endometrial biopsy in adulthood is a combination of the following factors:
- recurrence of uterine bleeding on the background of hypothalamic syndrome, - ineffectiveness of hormone therapy that you received earlier,
- Symptoms of severe endometrial hyperplasia according to ultrasound examination. In patients with menstrual disorders on the background of hypothalamic syndrome, the optimal way to stabilize menstrual function is controlled adequate courses of sex hormone therapy followed by phased courses of corrective non-hormonal treatment. This allows you to achieve a positive effect (improvement, recovery) in 86% of cases.

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