OBESITY, CLASSIFICATION, ETIOLOGY, PATHOGENESIS, CLINICS, DIAGNOSIS AND TREATMENT

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Annotation. Obesity is one of the most common chronic diseases in the world. Today, every fourth person on the planet is overweight or obese. In all countries, the number of people suffering from obesity, both in adults and children, is increasing. The World Health Organization recognizes the epidemic of obesity in the 21st century. Epidemiologists estimate that by 2025, 40% of men and 50% of women will be obese. The widespread prevalence of obesity on our planet increases serious somatic diseases - diabetes, cardiovascular diseases, oncological diseases, etc., which leads to a decrease in life indicators, patients lose their ability to work, and premature death is observed. . Ignoring obesity in clinical practice reduces the effectiveness of treatment of the disease, patients with obesity are usually treated with concomitant diseases, weight reduction and complications are warned.

Keywords: Adipozogenital dystrophy, Babinskiy-Pechkrans-Frelicha. Hypothyroid; Hypoovarian; hypothyroidism, hypercorticism, dyslipidemia; Cushing's syndrome

ОЖИРЕНИЕ, КЛАССИФИКАЦИЯ, ЭТИОЛОГИЯ, ПАТОГЕНЕЗ, КЛИНИКИ, ДИАГНОСТИКА И ЛЕЧЕНИЕ

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Аннотация. Ожирение является одним из самых распространенных хронических заболеваний в мире. Сегодня каждый четвертый человек на

планете имеет избыточный вес или страдает ожирением. Во всех странах увеличивается число людей, страдающих ожирением, как у взрослых, так и у детей. Всемирная организация здравоохранения признает эпидемию ожирения в 21 веке. По оценкам эпидемиологов, к 2025 году 40% мужчин и 50% женщин будут страдать ожирением. Повсеместная распространенность ожирения на нашей планете увеличивает серьезные соматические заболевания - сахарный диабет, сердечно-сосудистые заболевания, онкологические заболевания и др., что приводит к снижению показателей жизни, больные теряют трудоспособность, наблюдается преждевременная смерть. Игнорирование ожирения в клинической практике снижает эффективность лечения заболевания, больных ожирением обычно лечат с сопутствующими заболеваниями, предупреждают снижение веса и осложнения.

Ключевые слова: адипозогенитальная дистрофия, Бабинского-Печкрана-Фрелиха. Гипотиреоз; Гипоовариальная; гипотиреоз, гиперкортицизм, дислипидемия; синдром Кушинга

Introduction

Obesity (Latin. Adipositas - obesity and obesity - fullness, fatness, fattening) is the result of the formation of excess fat deposits that can be harmful to health. Obesity in adults 30 1. corresponds to a body mass index (BMI) of. Levels of obesity: silhouettes of normal, underweight and obese people.

In addition to obesity, experts distinguish overweight as a result of the formation of abnormal body fat with a BMI≥25 (in adults). Overweight and obesity in children are determined separately for the 0-5 and 5-19 age groups according to deviations from the standard indicators of physical development of children accepted by WHO. Overweight and obesity-related diseases cause great economic damage and are a factor that reduces labor productivity.

A morbidly obese man weighing 182 kg and 185 cm tall with a BMI of 53.2. Stretch marks and breast enlargement are visible with this weight.

Currently, obesity is considered a chronic metabolic disease that occurs at any age. This is manifested mainly by excess body weight due to the accumulation of adipose tissue, which is accompanied by an increase in the overall morbidity and mortality of the population.

Epidemiology.

In different countries, obesity leads to additional costs for both the state budget and citizens. For 2019, the loss of citizens of the G20 countries due to problems related to excess weight is 3.5% of GDP. Over the next 30 years, the projected losses for OECD and G20 countries are $5.3 trillion comparable to the three-decade budget of Germany or Japan. An increase in obesity is estimated to increase taxes by €300 in the EU and $1,350 in the US. Between 1975 and 2016, the number of obese people

worldwide tripled. From 1996 to 2016, it increased by 59%. In Russia and most European countries, about 20% of the population suffers from obesity, in the USA - 36.2%. Overweight in Russia is about 60% of the population, in the USA - 70% (in Europe - less). India (3.9%) and Japan (4.3%) have the lowest percentage of obese population.According to WHO estimates, about 41 million children aged 0-5 were overweight or obese in 2016. Children ages 5-19—340 million (18% girls and 19% boys), up more than 18% from 4% in 1975, of whom 124 million are obese (6% girls and 8% boys), 1975 Obese children aged 5-19 were less than 1%.) Obesity is unnecessary accumulation of body fat. Obesity itself is a developing syndrome and develops against the background of other diseases. The aphorism about the negative impact of excess weight on a healthy body, "Untimely death is more typical of the fat than of the thin" is known from the time of Hippocrates. Nevertheless, modern concepts of normal body weight developed by the 1930s. Until then, this disease was not a problem for medicine, which only deals with infectious diseases. Since the average life expectancy of an overweight person is 40 years, they are not considered the object of any investigation. According to the results of investigations carried out in recent years, the development of CHD and arterial hypertension is related to excess weight. Being overweight is always accompanied by an increase in total cholesterol and an increase in low-density lipoprotein and very low-density lipoprotein. It is known that for each extra kilogram of weight in overweight people, the amount of cholesterol increases by an average of 20 mg.

For every 4.5 kg of body weight, the indicator of systolic arterial pressure (SAB) is 4.5 mm. above increases to Excess weight leads to the development of insulin resistance (IR) and compensatory hyperinsulinemia.

Obesity is considered to be the 5th strongest risk factor for developing type 2 diabetes. 90% of people with type QD-2 suffer from obesity. Obstructive sleep apnea syndrome (OSA), arthrosis, is a dangerous and practically constant companion of obesity. The number of malignant tumors of the large intestine and gall bladder increases.

Classification of obesity.

Despite the proven role of obesity in the pathogenesis of serious concomitant diseases, as well as the prevalence of obesity, a single pathogenetic classification of obesity has not been developed until now.

Etiopathogenetic classification of obesity:

Exogenous-constitutional obesity (main, alimentary-constitutional):

1.1. Gynoid (buttock-thigh, lower type),

1.2. Android (abdominal, visceral, upper type).

Symptomatic (secondary) obesity:

2.1. A clear genetic defect (as part of a genetic syndrome with polyorgan damage);

2.2. Cerebral (adiposogenital dystrophy, Babinski-Pechkrans-Frelicha syndrome):

2.2.1. Brain tumor

2.2.2. Dissemination systemic damage, infectious diseases;

2.2.3. Against the background of mental illness

2.3. Endocrine:

2.3.1. Hypothyroid

2.3.2. Hypoovarian;

2.3.3. Hypothalamic-pituitary system diseases;

2.3.4. Kidney diseases;

2.4. Iatrogenic (under the influence of a number of drugs without prescription).

Various variants of the obesity classification have been proposed, the most widely used are the body mass index (BMI) classification, proposed by the WHO, and the working etiopathogenetic classification of obesity.

Pathogenesis:

To ensure energy balance, the demand for energy must be equal to its consumption. Individual energy consumption in a person depends on 3 factors. The first factor: basic metabolism, proportionality of body weight and surface area, appropriateness of energy expenditure in maintaining basic physiological function. The second factor: the thermogenic effect (a special dynamic effect of food), accounts for approximately 5-10% of total energy expenditure and is associated with additional energy expenditure during digestion and stimulation of metabolism for the formation of new substrates. The third factor: physical activity causes a significant change in energy expenditure.

Eating high-calorie food is one of the obvious causes of obesity. One of the second non-problematic reasons is a decrease in energy consumption, insufficient physical activity. It is known from simple mathematical calculations that one excessive intake of food, for example, a sandwich with cheese, a glass of milk in 10 years, will lead to 10 kg of weight gain. In recent years, the development of obesity and related complications has become of great importance in the development of adipose tissue.

Adipose tissue consists of white and brown adipose tissue composed of fat cells in many organs. Its cells contain cytochrome and other acidic pigments. White adipose tissue is mostly found in adults, while brown adipose tissue is found mainly in children and some animals. Adipose tissue in humans is subcutaneous and visceral. White adipose tissue is found under the skin, mainly in the lower part of the abdominal wall, in the buttocks and thighs, and in the intra-abdominal areas. Fat is located intraperitoneally in the stomach and mesentery.

Clinical presentation and diagnosis of the disease

As with other diseases, the examination of a patient suffering from obesity begins with an inquiry and collection of anamnesis. Anamnesis may deviate from

real events, and complaints may be polymorphic and scattered. The range of complaints is quite wide: from the aesthetic problem of obesity to the characteristic manifestations of diseases accompanying obesity (YulK, type 2 QD, circulatory failure) and nonspecific symptoms (apathy, drowsiness, rapid fatigue, tendency to constipation and joint pain pains). Despite the fact that patients practically never complain of high appetite, it is necessary to determine the nature of abnormal eating.

It is necessary to offer the patient to fill in the food diary correctly and to explain to the patient how to fill it for 3-5 days, then we should analyze what we have written. Correction of proper nutrition, constant and correct use of the diary gives a good clinical result. There may be misunderstandings between the doctor and the patient when determining obesity. In many cases, the patient understands this intuitively and considers the cause of his obesity to be some kind of endocrine disease, while the doctor knows that it is simple obesity (exogenous-constitutional or alimentary-constitutional). It is in "endocrine obesity", that is, in obesity caused by a primary endocrine disease, the body mass index is 27-35, rarely 40 or more.

During work, patients often eat high-calorie foods and these foods contain a lot of fat. In many cases, patients eat something constantly, when they are excited, they eat before meals, even at night, but they do not realize that they are eating so much. The products they eat are standard: they eat the same food 5-6 times a week. 50-70% of the calories of the food consumed are for dinner, because they eat a lot of dinner. Typical evening eating syndrome is characterized by insomnia, morning anorexia, eating 50% of the daily diet and more (often after 19:00). Some scientists have also proposed a syndrome of evening drinking, and it includes alcohol consumed near the evening, which patients (I need to drink at work to solve some work or to calm myself down) do not drink at home in the evening, but because of work. may be related to alcohol or self-sedation, and this alcohol itself causes excess calories. In addition, alcohol affects 11-beta-hydroxysteroid dehydrogenase in visceral adipose tissue, increases its activity, disrupts the spontaneous transition of cortisol to inactive cortisone, and causes visceral obesity.

In some cases, eating binges correspond to 5-8 thousand kcal per drink. They respond to stress and binge eating, which is characteristic of women, with a hyperphagic reaction, that is, they eat a lot of food.

COMPLICATIONS OF OBESITY

Metabolic syndrome is a set of metabolic, hormonal and clinical disorders that are risk factors for the development of cardiovascular diseases. Metabolic syndrome is based on the loss of tissue sensitivity to insulin.

Gastroesophageal reflux disease is one of the most common diseases of the gastrointestinal system and can be compared with gastric ulcer and gallstone disease in terms of incidence. Sour stomach contents are thrown into the lower part of the esophagus.

In about 10% of cases, acid reflux occurs at the same time as alkaline, that is, both the contents of the stomach and the contents of the duodenum are thrown into the esophagus. Reflux develops more often in obese people, especially those who love food at night, drink alcohol, drink coffee, and smoke.

Type 2 diabetes is a violation of insulin secretion by cells of the pancreas and the presence of insulin resistance.

Ischemic heart disease (IHD) is a disease that combines angina, myocardial infarction and atherosclerotic cardiosclerosis. CHD develops due to insufficient blood supply as a result of narrowing of the coronary arteries.

Clinical examinations

1. Calorie intake. In overweight and obese people, food calories should be from 1500 to 600 kcal/milk depending on the level of obesity. A very low-calorie diet (900-600 kcal/milk) can reduce body weight by about 2 kg per week. Treatment with a very low-calorie diet can be continued for 6-8 weeks without fluid restriction. When losing weight quickly, not only fats are lost, but also protein. Therefore, the content of food should be high in protein, vitamins and minerals (K, Ca, Fe, Mg). But treatment with relatively hypocaloric diet (1300-1200 kcal/milk) is more effective. In this case, the reduction in body weight can reach 6-7 kg in 6 months.

2. Quality composition of food. Regardless of the daily calorie content of food, it contains 55-60% carbohydrates, 15-20% protein, 20-25% fat (1/3 animal fat, 2/3 vegetable oil). If desired, lean meat, fish, poultry, and green vegetables should prevail in the diet.

Dietary treatment begins with reducing food calories to 1100-1200 kcal/milk. In case of hypercholesterolemia, the amount of cholesterol is limited to 300 mg/day, in case of ineffectiveness - to 200 and 100 mg/day. Refined carbohydrates are consumed in a limited way (completely removed in diabetes). If the body weight does not decrease within 4-8 weeks, it is switched to a low-calorie diet (800-900 kcal/milk).

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