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AFFECTIVE RESPIRATORY PAROXYSMS

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Introduction: Affective respiratory paroxysms are episodic attacks of respiratory distress that occur at the peak of strong emotions, most often in children. These attacks can occur during intense crying, when the child suddenly stops breathing for several seconds. Approximately 5% of children between the ages of 6 months and 5 years may experience such paroxysms. The causes of this phenomenon have not been fully studied, but it is assumed that this may be due to immaturity of respiratory regulation and spasm of the laryngeal muscles. Diagnosis is usually based on the clinical picture and parental survey data. Treatment may include calming the child, and sometimes the use of medications and psychotherapy. With age, when the child's nervous system matures and he learns to control his emotions, seizures usually stop.

Keywords:affective respiratory seizures, anger, fear, pain, shock, fall, unpleasant manipulations, neuropathy, tearfulness, sleep disturbance, functional gastrointestinal disorders.

Affective respiratory seizures are an expression of discontent, non-fulfillment of desire, anger, fear, i.e. they have a psychogenic genesis. They often occur in response to external influences that cause pain in the child (blow, fall, unpleasant manipulations). Affective respiratory seizures occur mainly in children suffering from early childhood nervousness (neuropathy), which is manifested by tearfulness, sleep disorders, breast rejection, functional gastrointestinal disorders. Previously, these manifestations in pediatrics were designated as neuroarthritic diathesis. The clinical manifestations of ARP are typical. A child's breathing is delayed or stopped during crying or screaming due to muscle spasm larynx and glottis. Cyanosis or pallor of the skin appears. The veins in the neck are swollen. In mild cases, after a noisy inhalation, breathing is restored after 5-15 seconds. With prolonged seizures (1-2 minutes or more), loss of consciousness occurs due to cerebral hypoxia, seizures may occur, more often by the type of opisthotonus (tilting the head backwards, stretching the limbs with separate clonic twitches).

Symptoms

The attack is preceded by resentment of the baby (something was not given, taken away, etc.), fright, pain (hit, fell, etc.). The child begins to cry and during crying there is a respiratory arrest ("apnea"), which occurs mainly due to a spasm of the respiratory tract, the scream is deafened. The skin of the nasolabial triangle, the face turns blue or pales, the baby loses consciousness, bends, goes limp, quickly comes to himself. The duration of the attack is usually less than 1 minute. There are possible variants of milder manifestations (for example, the attack is short – a few seconds, there is no obvious loss of consciousness, limpness), and more severe symptoms (there is also twitching of the limbs, involuntary urination, the duration of the paroxysm is several minutes). After an attack, the child's general condition is usually normal, sometimes there may be short-term general lethargy, drowsiness.

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Depending on the change in skin color during paroxysm, there is a "cyanotic type" (with blueness of the skin, from the word "cyanosis" – cyanotic coloration of the skin), and a "pale type" of ARP (with pallor of the skin, while cyanosis is absent or very weakly expressed).

Most often, the "cyanotic type" develops. In this case, the attack is most often provoked by resentment, emotions, and anger of the child. Such attacks occur with strong crying in excitable children, prone to tantrums, and often the attack itself has the character of a hysterical reaction to some situation that the baby does not like. Rarely, one thing is a provoking factor: for example, there is a case when ARP was provoked only by offering a banana to a child and nothing else.

The "pale type" is less common. In this case, the attack is usually provoked by fright, pain (i.e. if the child fell, hit, etc.). The pallor of the skin prevails in the picture, and crying may be weakly pronounced, "there is no hysteria". Apnea is mild, but there is a slowdown in heart rate. The pale version of ARP looks more like a fainting condition than a neurotic reaction. Sometimes there may be a combination, for example, pallor of the nasolabial triangle and mild cyanosis of the skin of the face and neck.

There are four types of ARP:

The most common one is called a simple ARP. It manifests itself in the form of holding your breath at the end of exhalation. It is usually the result of frustration or injury. There are no major changes in blood circulation or oxygenation, respiration is restored spontaneously.

The blue [unknown term] type. As a rule, it is caused by anger or frustration, although there are cases of pain. The child cries and makes a forced exhalation, sometimes cyanosis occurs (blue color), loss of muscle tone and loss of consciousness. Most children regain consciousness, some fall asleep for an hour or two. There is no postictal phase. The EEG is normal.

The pale type. It is caused by fear or pain. The child turns pale (as opposed to the blue type) and loses consciousness, does not cry or cries a little. There is also no postictal phase. The EEG is normal.

Complicated type. It may just be a more severe form of the previous two types. An attack of this type begins as "blue" or "pale", and then flows into a kind of epileptic seizure. The electroencephalogram outside the attack is mostly normal.

The blue type is predominantly found, in which a relatively gradual development of the seizure occurs. For the white type ARP is characterized by lightning-fast development, usually as a reaction to pain from falling or injections. The child is pale, loses consciousness, falls or He "goes limp" in his mother's arms. A sharp reaction develops muscular hypotension, cold hands and feet. With age, there may be no crying period, which is similar in clinical picture to fainting. Some authors [2] call these ARPS affectively provoked syncopations. It is known that the vast majority of children with ARP have a predominance of the tone of the parasympathetic nervous system with increased inhibitory effects of the vagus nerve on the heart muscle. In this regard, "white" breath retention is especially dangerous, which can lead to bradycardia, short-term asystole and, in isolated cases, sudden death syndrome [3]. Recurrent hypoxic brain damage with prolonged ARP contributes to the formation of a focus of increased convulsive readiness and the development of epilepsy, which is registered in 5.8% of cases [4].

The following ARPS are threatening for epilepsy:

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-prolonged with loss of consciousness and convulsive component;

-even short-term, against the background of pronounced organic brain lesions or delayed psychomotor development, especially with minimal severity of provoking factors and hereditary burden of epilepsy.

Consequently, the genesis of ARPS is much more complicated than their interpretation as one of the forms of primitive hysterical reactions.

Tactics. With short-term ARP in normally developing children, it is possible to prescribe treatment

without consulting a neurologist. Sedative therapy is used in the form of glycine, valerian. Given

the fact that approximately 30% of children with neuropathy, against which ARP usually occurs, may have a paradoxical effect on sedatives (arousal), parents should be warned about this. In such cases, the appointment of hopanthenic acid is indicated, a nootropic agent that reduces the convulsive readiness of the brain (a daily dose of 30 mg / kg the course is 1.5–2 months). Hopanthenic acid is especially indicated for patients with ARP, combined with a clinical form of stuttering.

A combination of drugs such as magnesium lactate dihydrate/pyridoxine and gamma-amino-beta-phenylbutyric acid hydrochloride is quite effective. The drug gamma-amino-beta-phenylbutyric acid hydrochloride (Noofen®) is used for young children in 2 forms: 250 mg tablets (of which pharmacies prepare glucose powders for children from birth) and powders for children from 3 years old (a fixed single dose of 100 mg), which is very convenient in children 's practice. The daily dose is 12.5–15 mg / kg, the course is 4-6 weeks. The drug has a nootropic effect and sedative effects. Noofen can also be used as monotherapy.

An alternative to allopathic remedies is the complex antihomotoxic homeopathic drug Cerebrum compositum with cerebroprotective and antidepressant effects, which is available in ampoules for parenteral administration. A scheme for its oral administration has been developed, which is well known to pediatric neurologists.

In cases of epilepsy-threatening ARP, children should be referred to a neurologist for additional examination and to resolve the issue of long-term preventive antiepileptic treatment.

It is advisable to:

-conduct an EEG;

-in the presence of organic neurological symptoms – neuroimaging methods;

-examination of the cardiovascular system, especially in white-type ARP.

Non-drug methods are aimed at creating a calm environment at home, in a children's team. It is advisable to consult a psychologist. Sometimes parents, fearing the development of an attack, fulfill any desire of the child, which contributes to egocentricity and permissiveness. If the child begins to sob or scream, demanding something, you should quickly distract him by switching his attention to some object or action.

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The mother's heart will always "tell" how to do it. If the child is "stoned", it is necessary to ensure a sufficient supply of fresh air, sprinkle with water, shake, lightly slap on the fingers. It is necessary to limit all manipulations that the child is afraid of, unless absolutely necessary.

The doctor needs to be resourceful and interest the child by conducting an examination in a playful way. Parents of children with ARP should have the skills of primary resuscitation, which the doctor of the first contact (general practitioner, pediatrician) should familiarize them with.

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