Features of the Peculiarities of the Vegetative State in Bronchial Asthma in Children

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ABSTRACT

The results of the study of the initial autonomic status and autonomic regulation in patients with bronchial asthma are presented. The study involved 102 children aged 12 to 18 years in the phase of exacerbation of the disease. Vegetative status with moderate severity of the disease was characterized by sympathicotonia, high vegetative reactivity of the hypersympathic-tonic type. In adolescents with a severe course of bronchial asthma, there is a pronounced imbalance of autonomic regulation, characterized by a decrease in the tone of the sympathetic section at rest, an asymptomatic variant of the response to orthostatic load.

Keywords: bronchial asthma, children, autonomic nervous system, autonomic status

Introduction. Among allergic pathologies, bronchial asthma (BA) remains at the forefront, one of the most complex problems of pediatrics at once. The relevance and social significance of this disease lies in the high prevalence of this disease (10-15%). It is especially sad that this disease is common among children, is "rejuvenating" and is increasing in number from year to year, affecting the growth and development of Bo in moderation, causing early disability among them (Braback L.-2010 y). Critical analysis of thematic literature. It is no doubt that the literature information taxable, vegetative nervous system (vnt) ningmarkasiy and peripheral departments perform the task not only in the development of pathogenesis of bronchial obstruction, but also in the provision of processes of adaptation of the respiratory and cardiovascular system in BA. Vegetative disorder is considered one of the pressing problems of modern medicine. The nature of the reaction of the organism to conflict will depend on the initial regulatory mechanisms of vnt. Vnt dysbalance is one of the only pathological mechanisms of complication of various somatic diseases or infectious pathologies(Wayne a. M.-2005y).

There was no disease in which VNT was involved (Wayne a. M.- 2000y). Examination of the indicators of vegetative dysregulation in the norm and pathology in the last decade is a recognized necessary method, which is located in the main places of clinical and Experimental Medicine. The vegetative nervous system is under the control of the central nervous system and is considered the main regulator of all physiological processes in the body.

In 1981, a.M. Wayne notes that in Vegetative dysfunction, mediator exchange is disrupted, hyper - and hyposesurgery of peripheral and central receptors is observed. In this, not only respiratory system dysfunction (psychogenic-nature whooping cough, psychogenic cough, hyperventilation syndrome) is observed, but also psychosomatic diseases that go through vegetaitive dystonia, and ham mainly in bronchial asthma (Wayne a. M.- 2005y).

In many adolescents, high vegetative reactivity of the sympathicotonic background,

norm or hypersympathicotonic type is observed, while the tone of the parasympathetic section is in moderation and the supply of vegetative activity is observed in a sufficient variant at the time of excitation of the Middle severe course of branchial asthma.

It is known to be characterized by a strong dysbalance of vegetative regulation in severe course of branchial asthma in adolescents, a decrease in the tone of the sympathetic branch of the autonomic nervous system when the body is in a state of peace, a lack of supply of vegetative activity at an orthastatic load of the reaction of the asymptomatic variant of the organ and organ system. In adolescents with moderate severe course of bronchial asthma, it is characteristic that the myocardium is abnormal in the form of a violation of the function of automatism against the background of sympathicotonia at the time of excitation. Changes in the process of myocardial repolarization are accompanied by disturbances in the rhythm and conduction of the heart when the disease is severe (Guryanova E.M., Igisheva L.N., Galeev A.R. - 2003).

In bronchial asthma and various pathological processes, with dezadaptation, disorders of adaptive – compensatory processes occur. These mechanisms will be under the direct control of the vegetative structure of the organism (Aytkujina, B-2014y). VNT captures the homeostatic equality of the body, ensures its adaptation in the context of various pathological effects and controls its functions. The vnt adaptation center is the head regulator and provides a typical (Biosocial) adaptation of the multiform Geno – and Pheno in the body (Balabolkin I.I – 2015y). Organism functions are influenced by normo -, sympatico -, parasympathicotropic and, in the latter cases, antagonistic Adreno - or cholinergic.

A. M. Veyna commented that " there are no processes from practical humor that vnt has participated in. The main tasks of VNT: the body performs such tasks as involuntary management of life activities (metabolism, endocrine activity, blood ayoanish, breathing, digestion), maintaining homeostasis in moderation, participating in a conflict reaction, ensuring various forms of routine and physical activity".VNT is divided into parasympathetic (acetylcholine – mediator) and sympathetic (norepinephrine - mediator) parts, depending on the mediators that separate at the end of the synapse.

Adaptation is a multi-component dynamic process that is a series of reactions that ensure that the organism adapts as much as possible to the damaging effect. Hence, on the basis of multi – form adaptation reactions, there are processes that provide a specific compensator-adaptation to each of the phenomena and processes that occur in the body, despite the fact that they have different genesis in origin (Klyucheva m.G., Rivkin A.I., Troiskaya I.N-2005y).

In healthy people, the conditions of various environmental influences of the body, physical, mental and social influences are assessed in the same way as a level of adaptation. When the disease occurs in functional systems at the onset of the disease as a phenomenon in the form of adaptive jumps, the disease itself – as if the result of attenuation and a fracture of adaptive mechanisms-can be seen. Ending the data of literature materials, it can be concluded that the high reactivity of the key zveno – bronchi tree lies in the type of Genesis, which hacked BA. It is subject to hyperventilation processes caused by the action of an inflammatory mediator, leading to bronchial obstruction, increased airway resistance, decreased vegetative regulation of smooth muscle tone, hypoxemia called by the result of hypoventilation of the lungs and increased incompatibility of the inter-relationship of perfusions and ventiasias.

Purpose of research. The purpose of the study is to study the initial vegetative state and vegetative regulation in children with bronchial asthma of varying degrees of severity.

Research methodology. The research is based on clinical-laboratory tests of 102 children with bronchial asthma who fell into the pulmonology department of the Andijan Shahar multidisciplinary children's hospital from 208 to 2020.

Analysis and results. All vaccinated children were divided into 2 Groups: - 1 group was made up of 48 (33.8%)children with bronchial asthma with thyroid function preserved;

– 2 guruhni-54 (38.0%) were made up of BA children with vegetative and thyroid status disorders.

The laboratory conducted 40 almost soglom children of the same age, with age-appropriate physical and neurological-psychic development, without functional and morphofunctional retreats to check the data. The taximization of children examined showed that children with vegetative and thyroid status disorders under the age of 10 had a 21.4% higher incidence of bronchial asthma. In bronchial asthma, disruption of vegetative regulation occurs depending on adrenergic and Cholinergic zvenos. In the development of the pathological process, the retention of the vegetative balance ensures the achievement of a state of compensation, adequate peripheral blood flow and normal bronchial tone.

The number of boys in 1 Guruh is 1.7 times higher than girls, and in 2 Guruh – 3.2 times. In the case of vegetative homeostasis, it is considered necessary to study the initial vegetative tone (BVT), vegetative reactivity, the supply of vegetative activity. Bakholash CHVT is a.M.Wayne's diagnostic table is used (Wayne a. M.- 2005y). , in which the relationship of sympathetic and parasympathetic characters, adapted for children, is fulfilled. Taxile data show significant variations in the range of kig parameters. The index of in was found to range from 24 to 1,848 conditional units in children in Group 1, and 12 to 3,023 conditional units in Group 2. In the control group observed with sympathicotonia, this indicator is 408 conditions.birl. did not exceed. This is what became known in the misalignment of BVT through the misalignment chart, when sympathetic characters called Insomnia, cephalgia, high excitability in various variants of cardialgia of a short-term stinging character. Parasympathetic signs, on the other hand, are manifested mainly in the form of marbled whitening of the skin covers, hyperhydros, predisposition to syncopal conditions, dizziness, migraines, cardialgia of an ischemic nature, disorders of intestinal motility.

The parameter estimation of KIG shows that the sympathetic portion of sympathovagus equilibrium vnt prevails in 1st group patients when compared with the control guru (22.5% and 2.5%) in the form of sympaticotonia(45.8%) or hypersimpaticotonia (20.8%) during calm.

The number of patients with BA is almost the same in the eytonic balance of vnt 1st and 2nd cohorts (18.0% I 22.2%).

However, when the process was severe in patients, the sympathicotonic background was expressed significantly strongly, and when observed in 27.8% of cases, the hypersympathicotonic variant of Chvt was known to be observed in 18.5% of cases. It was found that in 35.2% of cases, the vagotonic orientation of the BVT was observed. In a study of VR, it was found that the amount of patients with normal reactivity would be almost the same in Groups 1 and 2(23 (47.9%) I 20 (37.0%). However, such an equilibrium state of the sympathetic and parasympathetic sections of the vnt can be reduced 2 times by comparison in orthostasis.

In children of Group 1, excess sympathetic activity was characterized by a disadaptive reaction at the time of normal tone of the parasympathetic section and reached the required level (52.1%) or vegetative supply in the acute (37.5%).

Such an option is characterized by a high level of vegetative nervous system function in the conditions of illness agitation, an increase in neurogumoral activity and a favorable adapted response to hypoxia as a reaction. In the 2nd group of patients with BA, vegetative reactivity is characterized by an orthostatic imbalance, with an excess of arterial hypotension and asympticotonia (40.7%), which was observed in the 1st group to increase the frequency of the analogical reaction and arrive in comparison with the indicator in the control group (16.7% and 5.0% corresponding).

Individual rhythm variabel parameters to the estimators according to, the norm and hypersympathicotonic variants of VR have been severe BA at the activity of the sympathetic tone the more the parasympathetic tonethere was a decrease.

Adequate vegetative supply in 32% of cases in patients, it was observed to be lower than the control guru (70.0%). The main variant of vegetative dysbalance is in the severe course of BA The fact that the VTF is not enough, in half of the examined groups (40.7%) observed. In this case, the recovery period extends in 72% of

cases, which is BA excited decrease in the adaptability of the organism at the stage it is blessed with. From our own views, we conclude that BA is suffering from

among our patients, its severe course is 1st to our patients in the group reactivity option with a relatively vegetative activity supply the observation of asympticotonic addition is 4 times higher would be (53.7% I 10.4% according).

Conclusions and suggestions. During the period of arousal, bronchial asthma can be caused by children and adolescents who suffer from moderate to severe seizures in most, the vegetative state background is against the background of sympathicotonia, parasympathetic in the normal tone state of the section, the norm is - or hypersympathicotonic high autonomous reactivity and activity of the type autonomous characterized by a sufficient supply option. Severe asthma clear autonomic regulation in adolescents with late onset an imbalance was observed, which is sympathetic to the vegetative nervous system decrease in the tone of division, during the calm state of the body, organs and orthostatic with sufficient autonomous supply of systems performance asympticotonic load response has been seen.

In children and adolescents with an average weight of BA during the agitation period electrical instability of the myocardium against the background of sympathicotonia, mainly, dominated the automatic function in the form of a violation; severe disease rhythm and conduction disorders in patients with seizures variations of myocardial repolarization processes it was observed together with. Vegetative regulation in severe B. A. in children and adolescents with strong dysbalance, when the organism is in a state of calm organ with reduced tone of sympathetic branch of the autonomic nervous system and the reaction of the organ system in the asympticotonic variant with a lack of supply of vegetative activity in orthastatic loading characterisation is known. Patient with BA in children by the hormonal system when the changes that are going to be BA heavy the body is in a state of protective adaptation accompanied by the rapid attenuation of these processes, giving it a hormonal dysbalance is added. Vegetative status in children and adolescents with BA disease if a" prognostic map " is drawn up for evaluation, through which various risks vegetative and thyroid States when factors come together quantitative estimation of the development of dysfunction evaluate. In this case, the child is more likely to recover, the risk indicator the range ranges from 7.74 to 22.18. In the range indicator 22,19-44,36 dysfunction of vegetative and thyroid statuses - secondary risk excitability expressed and observed in up to 45% of cases. Here in this 44.37-66.55 range the development of vegetative and thyroid status dysfunction is very high will be achieved.

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