

PEDIATRY



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PATHOLOGIC AFFECTION OF CHILDREN WITH DIFFERENT DEGREES OF RISK OF INTRAUTERINE INFECTION

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The paper reflects the structure of the pathology of children who have different degrees of risk of intrauterine infection at birth. Analysis of pathology occurring in children of different age depending on degree of risk has been carried out.

Keywords: *risk of intrauterine infection, pathological affection*

В работе отражена структура патологии детей, имевших разные степени риска внутриутробного инфицирования (ВУИ) при рождении. Был проведен анализ патологии встречающейся у детей разных возрастных групп, в зависимости в зависимости от степени риска.

Ключевые слова: *степень риска внутриутробного инфицирования, патологическая пораженность*

Introduction

Preserving and strengthening of the health of the younger generation is important national task. 16 participants of the Congress of Pediatricians of Russia, held in February 2009 in Moscow, has noted that albeit with tendency to improving crisis demographic situation persists, especially with regard to child population. Significant increase of morbidity has been noted. During the last five years this rate has been increasing annually on 4-5%.

Delegates and members of Congress stated that the health mostly depends on the impact of various risk factors. At age to 5 years it is largely due to risk factors of perinatal nature and infectious disorders [5].

According to many authors one of the main causes of perinatal morbidity and mortality is IUI [1-3].

Immediate and long-term consequences of IUI cause deviations in health status as in infants and in older children up to disability [4].

Over 15 years members of the department of microbiology, immunology and infectious diseases of IE NovSU study influence of IUI on fetus, newborn, as well as long-term effects of IUI. The result of these studies was the possibility of predicting of IUI risk with development of specific recommendations for both doctors supervising the children and their parents.

The new stage is to study the health status of children who had different risks of IUI forecasting possible pathology.

Materials and methods

We studied cases of 160 children from birth to 7 years old who had different degrees of IUI risk at birth.

Risks were distributed as follows: low risk of IUI — 76 persons (45%), average risk of IUI — 54 persons (33.75%), high risk of IUI — 23 persons (14.5%), and extremely high risk of IUI — 7 persons (4.25%)

For comparison we have selected group of children who had no risk of intrauterine infection at birth — 30 persons.

To obtain more objective data children were divided into the following age groups in accordance with the periods of childhood: 0-1 year — infants, 1-3 years old — children of early childhood, 3-7 years old — preschool children.

Results and discussion

Pathology of nervous system, gastrointestinal tract and skin diseases are dominating in structure of pathological affection of infants. Nearly 50-60% of patients had this pathology. And in the first two cases we can clearly note dependence of amount of pathology on IUI risk: pathology of nervous system (mainly encephalopathy, psychomotor retardation) at low risk IUI was registered in 40.8%, at average risk — in 53%, at high risk — in 82.6%, at extremely high risk — in 85.6% of children. Pathology of gastrointestinal tract (mainly dysbiosis, giardiasis and dysfunction) at low risk IUI was observed in 35.5%, at average — 42.6%, at high — in 73%, at extremely high — in 90% of children.

Pathology of locomotor system namely hip dysplasia, torticollis, rachitic deformities of the skeleton were observed in slightly lower percentage of cases — 40%; as well as pathology of hematopoietic and cardiovascular systems. Nearly 21% of children had anemia.

Eye diseases were recorded in 42.9% of cases of children who had extremely high risk of IUI. This is mainly conjunctivitis, dacryocystitis. Eye diseases in children who had lower risk of IUI are much rarer.

Share of pathology of nervous system diseases in patients of early childhood decreased almost in 5 times. Structure of pathology also changed: neuroses, delay of speech development, minimal brain dysfunction are dominating.

In this age group dermatitis (mostly allergic, dermatitis infectious etiology), pathology of ears, nose

throat, as well as pathology of gastrointestinal tract are leading. In all cases the smallest percentage of sick children is at low IUI risk — 46%, the maximum is among children who had extremely high IUI risk — 100%. Share of dysbiosis among pathology of gastrointestinal tract is decreasing, while share of giardiasis, helminthiasis and inflammatory diseases is increasing.

It should also be noted that in the next age group the share of pathology of gastrointestinal tract is reduced, while the share of ENT pathology conversely increases.

Rate of dermatosis remains high in the second and third age groups. The structure remains practically unchanged, but in comparison with the first age group share of parasitic diseases is increasing.

In the second and third age group of children share of cardiovascular, blood diseases has reduced. In contrast to infants who have mostly anemia functional systolic murmur, cardiomyopathy and false tendons of the left ventricle are more common.

Rate of pathology of locomotor system remains practically unchanged. Its structure changes: share of flat and incorrect posture is increasing.

The percentage of children belonging to the category of often ill children increases both with age and growth of IUI risk. So there are from 5% to 34.7% of children among infants, and from 20% to 57% among older patients depending on the degree of IUI risk.

Only 3% of children who had low and medium risk IUI did not get ill during the first year of life. After some years this rate decreased to 2%.

There was no one healthy among patients who had high and very high risk.

Control group of infants does not contained often ill children and 13% of children had no pathology.

The first place in this age group takes pathology of locomotor system — 36.7%. Mainly it was hip dysplasia, torticollis and hernia.

The second place takes dermatosis — 30%; the third place — pathology of the gastrointestinal tract — 23.3%. ENT pathology and pathology of the urinary tract were not observed at all.

In the next age group (1-3 years old) share of often ill children was 10%, in 3.3% of cases no abnormalities were noted. The first place takes pathology of the gastrointestinal tract, the second one — dermatitis, the third — pathology of the cardiovascular system represented mainly by functional murmur.

In the third age group share of often ill children has grown up to 16.7%, share of children who had no pathology also increased to 6.7%. The first place takes ENT diseases, the second — dermatitis, the third — pathology of the gastrointestinal tract.

Conclusions

1. With increasing of degree of IUI risk share of pathology in children of all age groups is growing.

2. Children of all age groups have mostly gastrointestinal pathology, pathology of ears, nose, throat and skin diseases. The pathology of the nervous system has large share only in infants.

3. The higher risk of IUI patients had the more they catch cold.

4. Among children who had high and very high risk of IUI children of all age group were not healthy.

5. Pathologic affection of children who had different degrees of IUI risk is higher than pathologic affection of children of the control group.

6. Differences in structure and pathology have been found out: so infants who had the IUI risk have mostly neurological disorders and children who had no risk of IUI — pathology of the musculoskeletal system.

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