

Significance of dietotherapy on the clinical course of atopic dermatitis

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Key words: atopic dermatitis; children; dietotherapy.

Summary. The aim of this study was to determine the efficiency of individual balanced replacement diet in treatment of children with atopic dermatitis, to compare the course of atopic dermatitis and gastrointestinal disorders, as well as the data of skin patch test after a one-year period of dietary treatment.

Patients and methods. The study group included 154 children (their age varied from 6 months to 18 years) with atopic dermatitis, for whom food allergens were determined by allergic skin tests (skin prick and patch). These children were recommended an individual balanced replacement diet, where possible food allergens were replaced by other products that do not cause allergic reactions. After a one-year dietary treatment, 109 (70.8%) children (such number came for the second study) were tested repeatedly. The following aspects were evaluated for all these children: clinical course of atopic dermatitis (children's mothers provided answers about exacerbation of allergic rash during the last 12 months, gastrointestinal disorders, and used medicines), severity of the progress of atopic dermatitis (SCORAD index). Besides, skin patch test with 25 food allergens was carried out.

Results. Children who followed dietary recommendations were younger than children who failed to follow dietary recommendations because of a variety of reasons ($P=0.01$). Even 49 (62.8%) patients who followed dietary recommendations have shown the following results during the second test: allergic rash disappeared and they did not have to take medicines against allergy anymore. Patients who followed their individual dietary recommendations more rarely suffered from severe allergic rash problems during a 12-month period ($P=0.01$) and they had to take fewer medicines against allergy, compared to children who did not follow their dietary recommendations ($P=0.001$). Clinical course of atopic dermatitis in children who followed individual dietary recommendations was easier compared to children who did not follow such recommendations ($P=0.001$). During a one-year dietary treatment, 28.2% of children with atopic dermatitis became more tolerant to earlier food allergens. After the comparison of skin patch test results (before dietary treatment and after a one-year period), it was determined that only skin patch tests against buckwheat, oat, beef, and cacao did not change statistically significantly. Results of skin patch tests against other food products were found to be positive more rarely. Besides, children who followed their dietary recommendations suffered from gastrointestinal disorders more rarely as compared to children who did not follow their dietary recommendations ($P=0.01$). They suffered less from abdominal pain ($P=0.01$), abdominal distention ($P=0.044$), and constipation ($P=0.035$).

Conclusions. Individual balanced replacement diet for children with atopic dermatitis helped to fully control nutrition of sick children from various age groups and had a positive effect on the clinical course of atopic dermatitis. Patients who followed their individual dietary recommendations suffered from severe allergic rash more rarely and they had to take fewer medicines against allergy as compared to children who did not follow dietary recommendations. Clinical course of atopic dermatitis in children who followed individual dietary recommendations was easier as compared to children who did not follow such recommendations. One-third of children with atopic dermatitis became more tolerant to earlier food allergens during a one-year period. After a one-year dietotherapy treatment, positive patch test reactions to many food products appeared to be more rarely, except for buckwheat, oat, beef, and cacao. Besides, children who followed their dietary recommendations suffered from gastrointestinal disorders (abdominal pain, abdominal distention, and constipation) significantly more rarely as compared to children who did not follow their dietary recommendations.

Introduction

Atopic dermatitis is a frequent chronic skin disease in children, characterized by itching and inflammatory skin foci. The frequency of various allergic diseases, including atopic dermatitis, is constantly increasing all over the world (1, 2). According to data provided by Lithuanian scientists, atopic dermatitis was diagnosed in 4–17% of children, living in Lithuania (3). Although the frequency of atopic dermatitis tends to decrease as children grow, the risk of bronchial asthma and allergic rhinitis remains very high (50–80%) (4, 5).

Children with atopic dermatitis are usually sensitive to food allergens. Various literature sources provide data that 35–80% of children with atopic dermatitis are allergic to food (4, 6, 7). Many scientists note that food allergens (milk, soy, eggs, wheat, nuts, and fish) are one of the most important factors, determining the appearance of this disease (8–10). The range of food allergens differs in various age groups. During the first years of life, allergic reactions are usually caused by cow milk proteins, eggs, soy, and wheat. As children grow up, the main allergens appear to be nuts, fish, and seafood (11–13). Even 95% of allergic children are sensitive to several food products (14). Theoretically, allergic reactions can be caused by any food products that contain proteins. Majority of allergies to food develop during the first 3–4 years of life, when the barrier of gastrointestinal system is not matured yet and when immune system does not have ability to tolerate food. The real extent of allergy to food is unknown. Data, provided by a variety of authors, suggest that 6–8% of small children and 2% of general population are allergic to food (15–17).

If allergic symptoms appear immediately (during the period of several minutes) after an intake of a suspicious food product, food allergens can be determined rather easily; however, it is more difficult to determine food allergens in the delayed-type allergic reactions. In the last decade, in the pathogenesis of atopic dermatitis, delayed-type immune reactions and a new diagnostic method, i.e. skin patch test with food allergens, have been recognized (18–23).

Usually, allergic reactions to food are characterized by skin disorders, gastrointestinal and respiratory disorders (13, 17), but infants can suffer only from gastrointestinal disorders (24). Medical literature provides rather scarce data on gastrointestinal disorders (their features, frequency, inflammatory changes) in children with atopic dermatitis. Caffarelli et al. note that the most common complaints of such children are diarrhea, vomiting, nausea, and eructation (25). Twenty-six percent of patients suffer from constipation (26).

It is known that many children's allergy to cow milk, eggs, soy, and wheat can disappear with time; however,

allergy to fish and nuts usually remains for a lifetime (13, 16). Some authors note that early determination of causal allergens increases the efficiency of prophylaxis of mixed and severe allergy forms. The efficiency of dietotherapy can reach even 86% (27). Data show that during the first year of dietary treatment, 26% of allergic children become tolerant to that food and during the second year – another 11% (4). Up to now various literary sources recommended elimination diet, i.e. to eliminate from children's diet such products that cause allergy. However, no scientific studies were found that analyzed individual balanced diets, including no food allergens but providing the necessary daily amount of main nutritional materials, vitamins, mineral materials and energy, for children (from different age groups) with atopic dermatitis. No data were provided on the influence of such diets on the further clinical course of atopic dermatitis, as well as on a child's physical development. Every child with atopic dermatitis has to be clearly informed about food products that cause his/her allergy. It is also very important to choose the diet that does not include food products causing allergy but could guarantee the provision of the necessary daily amount of main nutritional elements, vitamins, mineral materials, and energy as well as normal organism development.

The aim of this study is to determine the efficiency of individual balanced replacement diet in the treatment of children with atopic dermatitis, to compare the course of atopic dermatitis and gastrointestinal disorders, as well as the data of skin patch test after a one-year period of dietary treatment.

Study contingent and methods

The study group included 154 children (their age varied from 6 months to 18 years) with atopic dermatitis who were tested and treated in the Department of Children's Diseases, Kaunas University of Medicine. Atopic dermatitis for all these children was diagnosed according to standardized diagnostic criteria (provided by Hanifin and Rajka, 1980); severity of clinical course of atopic dermatitis was measured by the SCORAD (Severity Scoring of Atopic Dermatitis) index (European Task Force on Atopic Dermatitis, 1993); allergic skin tests (skin prick and patch tests with food allergens) were done in order to determine food products that cause allergy. Skin patch test with 25 food allergens was done following recommendations, provided by Finnish scientists (20). A special questionnaire (prepared by the researchers) helped to determine previous and current gastrointestinal disorders (type of abdominal pain, nausea, vomiting, diarrhea, constipation, abdominal distention). After the determination of major allergens, each child was allocated to an individual balanced replace-

Table 1. Changes of food products and dishes in a diet for allergic infants and children

Food products and dishes in a diet for healthy infants and children	Amount (g)	Changes of food products and dishes in a diet for allergic infants and children	Amount (g)
Rice porridge with milk	150	Rice porridge with hydrolyzed mixture or Pearl-barley porridge with hydrolyzed mixture or Oat flake porridge with hydrolyzed mixture or Buckwheat porridge with hydrolyzed mixture	140 135 130 130
Oat flake porridge with milk	150	Rice porridge with hydrolyzed mixture or Pearl-barley porridge with hydrolyzed mixture or Oat flake porridge with hydrolyzed mixture or Buckwheat porridge with hydrolyzed mixture	150 145 140 140
Pearl-barley porridge with milk	150	Rice porridge with hydrolyzed mixture or Pearl-barley porridge with hydrolyzed mixture or Oat flake porridge with hydrolyzed mixture or Buckwheat porridge with hydrolyzed mixture	145 140 135 135
Beef puree	30	Turkey puree or Pork (low-fat) puree or Rabbit puree	40 35 30
Fish puree	30	Turkey puree	30
Vegetable puree with milk and carrots	200	Vegetable puree with zucchini	250
Carrot juice	100	Apple or Banana puree	85 60
Strawberry puree	100	Apple or Banana puree	135 100
Milk 2.5%	150	Beef fillet (boiled)	55
Curd 9% with jam	50/10	Beef ham (boiled) and Bread (rye)	30 30
Boiled egg	40	Fat-free curd cheese or Curd cheese 13% or Curd cheese 22%	50 35 25
Fish croquette	80	Rabbit croquette Beef croquette	53 60
Chicken croquette	70	Rabbit croquette or Rabbit meatballs or Beef meatballs or Beef-pork croquette or Turkey croquette	56 65 65 65 68
Buckwheat porridge	150	Barley porridge or Oat flake porridge or Pearl-barley porridge or Rice porridge	150 150 155 165
Carrots	100	Kohlrabi	150
Tomatoes	100	Cucumbers or Kohlrabi or Radish	160 100 100
Orange juice	200	Tea with sugar and Banana or Apple juice or Berry pap	200/5 and 70 250 120

Table 2. A representative menu of a diet (8-12 months) for healthy infants

Menu	Output (g)	Proteins (g)	Fat (g)	Carbohydrate (g)	Nutritional value (kcal)
Before breakfast: Adapted mixture or breast milk	200	4.48	5.88	15.8	134
Breakfast: Rice porridge with milk Tea without sugar	150 75	5.96 –	4.94 –	33.21 –	201.08 –
Lunch: Apple puree	100	0.1	0.1	7.57	63
Dinner: Vegetable puree Beef puree Tea without sugar	200 30 75	4.76 5.82 –	5.2 2.31 –	27.42 0.06 –	175.34 44.1 –
Supper: Oat flake porridge with milk Tea without sugar	150 75	7.74 –	7.13 –	30.89 –	218.03 –
Before night: Adapted mixture or breast milk	200	4.48	5.88	15.8	134
Total		33.34	31.44	130.75	969.55

Table 3. A representative menu of a diet (8-12 months) for infants allergic to cow milk, buckwheat, wheat, fish, chicken, soy, carrot, and banana

Menu	Output (g)	Proteins (g)	Fat (g)	Carbohydrate (g)	Nutritional value (kcal)
Before breakfast: Hydrolyzed mixture or breast milk	200	3.2	7.2	13.6	132
Breakfast: Rice porridge with hydrolyzed mixture Tea without sugar	140 75	3.72 –	5.96	33.42	201.95
Lunch: Grated apple Tea without sugar	100 75	0.4 –	0.4 –	13.0 –	53 –
Dinner: Vegetable puree Beef puree Tea without sugar	260 30 75	4.16 5.82 –	5.51 2.31 –	29.25 0.06 –	182.91 44.1 –
Supper: Oat flake porridge with hydrolyzed mixture Tea without sugar	140 75	5.39 –	8.01 –	31.25 –	217.78 –
Before night: Hydrolyzed mixture or breast milk	200	3.2	7.2	13.6	132
Total		25.89	36.59	134.18	963.74

ment diet where, following predetermined proportional requirements, food allergens were replaced by other products that do not cause allergy. Every diet was prepared following the requirements on the necessary amount of nutritional elements and nutritional value (Table 1). The prepared individual balanced diet corresponded to the necessary daily norms of major nutritional elements and nutritional value (Tables 2 and 3).

After a one-year dietary treatment, 109 (70.8%) children were tested for the second time; 78 children followed requirements of dietary treatment prescribed. Those children's mothers provided answers to questions about the clinical course of atopic dermatitis (exacerbation of allergic rash during the last 12-month period, gastrointestinal disorders, and taken medicines). Besides, severity of the progress of atopic dermatitis (SCORAD index) was evaluated for the second time. Finally, skin patch test with 25 food allergens was carried out. During remission period, patients were tested on an outpatient basis.

Statistical data analysis was done with SPSS 12 (Statistical Package for Social Sciences 12.0 for Windows) software package. Clinical data were analyzed using the χ^2 test. This test examined statistical hypotheses related to interdependence of symptoms. Marginal homogeneity test was used to evaluate the results of skin patch test before diet and after dietary treatment. Student *t* test was used to compare averages between two groups. A single-factor dispersion analysis (i.e. looking whether children followed their individual dietary recommendations) was used to evaluate an increase in height and weight of children with atopic dermatitis during a one-year period. A significance level of 0.05 was applied during the analysis of statistical hypotheses.

Results

After a one-year period, when food allergens were determined (skin prick and patch tests) and specialized individual balanced replacement diet was recommended, 109 (70.8%) patients – 64 (58.7%) boys and 45 (41.3%) girls – with atopic dermatitis were tested for the second time. The mean age of these children was 2.6 years (standard deviation, 2.7 years). Out of all children tested for the second time, 31 (28.4%) children failed to follow their individual elimination diet for a variety of reasons. The mean age of these children was 4.8 years (standard deviation, 3.4 years). After age comparison (using *t* test) in independent samples of children who followed their individual dietary recommendations and those who did not follow such requirements, a statistically significant difference was determined ($t=5.74$; $P=0.01$).

Even 49 (62.8%) children who followed dietary recommendations have shown the following results during the second test: allergic rash did not develop during the 12-month period and they did not have to take medicines against allergy. The study showed that children who followed individual dietary recommendations developed allergic rash statistically significantly more rarely during the 12-month period ($P=0.01$), and they had to take fewer medicines against allergy, compared to children who did not follow individual dietary recommendations ($P=0.001$). However, only 10 (32.2%) children who did not follow individual dietary recommendations did not take medicines against allergy because allergic rash did not flare up.

Allergic rash disappeared in 49 (62.8%) children who followed dietary recommendations. Rash did not disappear in the remaining part of children who did not follow individual dietary recommendations ($\chi^2=12.691$; $df=1$; $P=0.01$). The clinical course of the disease in children

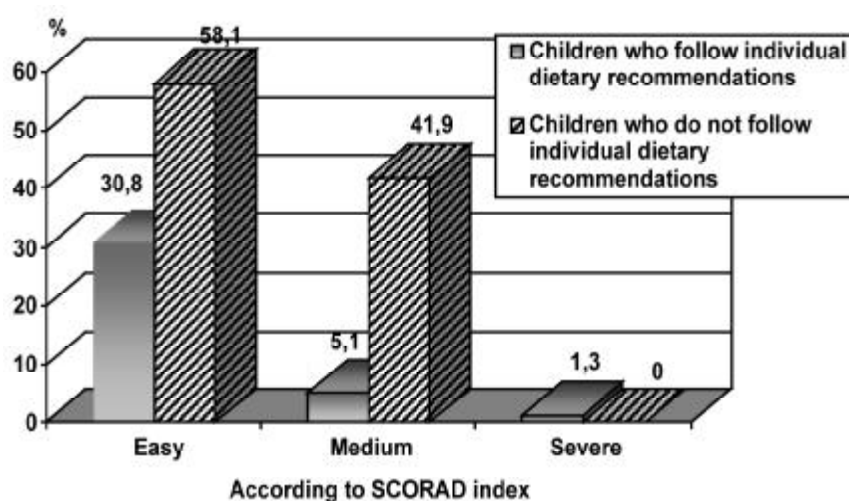


Fig. 1. Distribution of children with atopic dermatitis according to severity degree of the clinical course of atopic dermatitis

with atopic dermatitis who followed individual dietary recommendations was easy in 30.8% (n=24) of cases and moderate severity in 5.1% (n=4) of cases. The clinical course of the disease in children with atopic dermatitis who did not follow individual dietary recommendations was easy in 58.1% (n=18) of cases and moderate severity in 41.9% (n=13) of cases (Fig. 1). The clinical course of atopic dermatitis is defined as easy when the SCORAD index varies between 1 and 24 scores; moderate severity is identified when the SCORAD index varies between 25 and 50 scores; severe form of atopic dermatitis is diagnosed when the SCORAD index is more than 50 scores. The SCORAD index was estimated before dietary recommendations and after such recommendations; this helped to see the efficiency of dietary treatment.

The comparison of height growth in children with atopic dermatitis (paying attention to the compliance with dietary recommendations) during a one-year period showed that height growth in children who followed dietary recommendations was 1.6 cm (95% PI=0.4–2.9) greater, compared to children who did not follow dietary recommendations. Weight growth between these two groups did not differ statistically significantly.

Positive skin patch test was repeatedly determined after a one-year period for 84 (77.1%) children. Twenty-five (22.9%) children with positive skin patch test reac-

tions at the beginning showed negative skin patch test results after a one-year dietary treatment. Only 3 (9.7%) children (of those with positive skin patch test at the beginning) who did not follow dietary recommendations showed negative skin patch test results after a one-year period. Children who followed individual dietary recommendations for a one-year period, statistically more frequently had negative skin patch test reactions to food allergens, compared to children who did not follow dietary recommendations ($P=0.038$). The reactions of second skin patch test with food allergens after a one-year period most frequently remained positive to soy (n=23; 21.1%), peanuts (n=20; 18.3%), cod (n=14; 12.8%), corn (n=14; 12.8%), and wheat (n=11; 10.1%). After a one-year period, we did not determine allergy to yolk, rice, pork, apple, potatoes, and cabbage. The results of skin patch test for children with atopic dermatitis before dietary treatment and after a one-year period was compared by marginal homogeneity test (Table 4).

Nine (11.5%) children who followed their individual dietary recommendations had symptoms of atopic dermatitis together with gastrointestinal disorders. In the group of children who did not follow individual dietary recommendations, 15 (48.4%) had gastrointestinal disorders and symptoms of atopic dermatitis. In case of exacerbation of atopic dermatitis, children who followed dietary recommendations statistically less frequently had

Table 4. Results of skin patch test in children with atopic dermatitis before dietary treatment and after a one-year period

Food products	Positive SPT reaction before dietary treatment, N (%)	Positive SPT reaction after a one-year period, N (%)	p
Milk	38 (34.9)	8 (7.3)	0.001
White of the egg	25 (22.9)	8 (7.3)	0.001
Wheat	28 (25.7)	10 (9.2)	0.001
Buckwheat	5 (4.6)	1 (0.9)	0.157
Corn	30 (27.5)	15 (13.8)	0.001
Barley	11 (10.1)	3 (2.7)	0.021
Rye	23 (21.1)	9 (8.2)	0.001
Oat	3 (2.7)	1 (0.9)	0.739
Soy	44 (40.4)	23 (21.1)	0.001
Beef	9 (8.2)	5 (4.6)	0.366
Chicken	14 (12.8)	6 (5.5)	0.012
Cod	21 (19.3)	13 (11.9)	0.008
Peanuts	33 (30.3)	20 (18.3)	0.001
Banana	12 (11)	2 (1.8)	0.003
Orange	10 (9.2)	1 (0.9)	0.002
Carrots	29 (26.6)	5 (4.6)	0.001
Cacao	11 (10.1)	4 (3.7)	0.083
Honey	11 (10.1)	4 (3.7)	0.013
Whey	9 (8.2)	2 (1.8)	0.013

SPT – skin patch test.

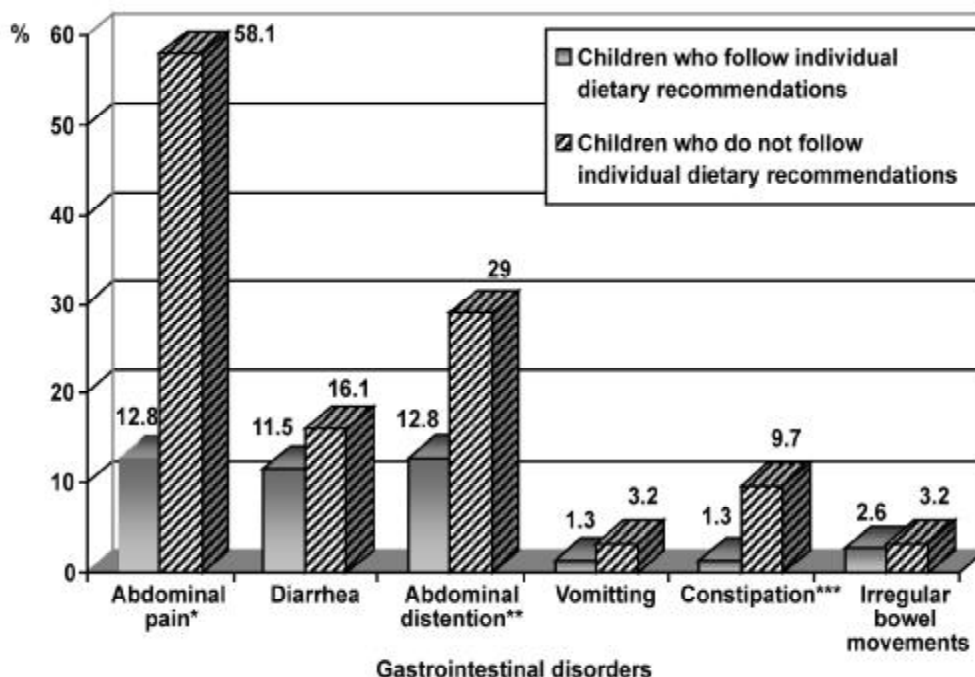


Fig. 2. Most common gastrointestinal disorders associated with atopic dermatitis in children who follow individual dietary and children who do not follow dietary recommendations

Significance level comparing children with atopic dermatitis and control group:

* $P=0.001$; ** $P=0.001$; *** $P=0.04$.

gastrointestinal disorders compared to children who did not follow dietary recommendations ($P=0.01$).

Fig. 2 provides the most common gastrointestinal disorders in children with atopic dermatitis (two groups: those who followed dietary recommendations and those who did not follow such requirements). Children who followed dietary recommendations suffered less frequently from abdominal pain ($P=0.01$), abdominal distention ($P=0.044$), and constipation ($P=0.035$), as compared to children who did not follow such requirements.

Discussion

Literature sources provide few scientific articles that prove the efficiency of elimination diet in children with atopic dermatitis (28); however, no data related to individual balanced diet recommendations for children were found. Thus, the aim of this work was to determine food allergens and give recommendations related to children's individual balanced diet, where food allergens were replaced by other products that do not cause allergic reactions and have the same nutritional elements and nutritional value. That was the novelty of our research. Obtained data show that children who followed individual dietary recommendations were significantly younger, compared to children who did not follow such requirements because of a variety of reasons ($P=0.01$). Even 49 (62.8%) children who followed dietary recommen-

dations have shown the following results during the repeated test: allergic rash disappeared and they did not have to take medicines against allergy anymore. Patients who followed their individual dietary recommendations statistically significantly more rarely suffered from severe allergic rash problems during a 12-month period ($P=0.01$) and they had to use fewer medicines against allergy, compared to children who did not follow their dietary recommendations ($P=0.001$). The following generalizations can be made about the clinical course of atopic dermatitis: clinical course of atopic dermatitis for children who followed individual dietary recommendations was easier, compared to children who did not follow such requirements ($P=0.001$), and height growth in children who followed dietary recommendations was 1.6 cm (95% CI=0.4–2.9) greater, compared to children who did not follow dietary recommendations.

Study results show that 28.2% of children with atopic dermatitis became more tolerant to their food allergens during a one-year period. Other researchers provide similar results (4, 27). After the comparison of skin patch test (before dietary treatment and after a one-year period) results, it was determined that only skin patch tests with buckwheat, oat, beef, and cacao did not change significantly. The results of skin patch tests with other food products were found to be positive more rarely. Literature sources, on the other hand, note that many

children who are allergic to milk, eggs, soy, wheat become tolerant to these products during a certain period. Only allergy to fish and nuts usually remains for a lifetime (16, 29).

However, no scientific studies were found that analyzed the effect of individual balanced diets on gastrointestinal disorders in children with atopic dermatitis. Our results show that children who followed their dietary recommendations suffered from gastrointestinal disorders significantly less frequently, compared to children who did not follow their dietary recommendations ($P=0.01$). They experienced less abdominal pain ($P=0.01$), abdominal distention ($P=0.044$), and constipation ($P=0.035$).

After a careful analysis of the study data, it can be stated that individual balanced diet, recommended to children with atopic dermatitis, has a highly positive effect on the further clinical course of atopic dermatitis.

Conclusions

1. Individual balanced replacement diet for children with atopic dermatitis helped fully to control nutrition of sick children from various age groups and

had a positive effect on the clinical course of atopic dermatitis.

2. Children who followed their individual dietary recommendations suffered from severe allergic rash significantly less frequently and had to take fewer medicines against allergy, compared to children who did not follow dietary recommendations.

3. Clinical course of atopic dermatitis for children who followed individual dietary recommendations was easier, compared to children who did not follow such requirements.

4. One-third of children with atopic dermatitis became more tolerant to earlier food allergens during a one-year period.

5. After a one-year dietotherapy treatment, positive skin patch test reactions to many food products, except for buckwheat, oat, beef, and cacao, were determined significantly less frequently.

6. Children who followed their dietary recommendations suffered from gastrointestinal disorders (abdominal pain, abdominal distention, and constipation) significantly more rarely, compared to children who did not follow their dietary recommendations.

Dietoterapijos reikšmė atopinio dermatito klinikei eigai

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Raktažodžiai: atopinis dermatitas, vaikai, dietoterapija.

Santrauka. Tyrimo tikslas. Įvertinti pakaitinės individualios, subalansuotos dietos poveikį, gydant atopiniu dermatitu sergančius vaikus, palyginti atopinio dermatito ir virškinimo sutrikimų eigą bei odos lopo mėginio duomenis po vienerių metų dietos.

Metodika. Tiriamąją grupę sudarė 154 atopiniu dermatitu sergantys vaikai nuo 6 mėnesių iki 18 metų, kuriems alerginiais odos mėginiais (odos dūrio ir odos lopo) pavyko nustatyti alergizuojamus maisto produktus. Šiems vaikams buvo paskirta individuali subalansuota pakaitinė dieta, kurioje alergizuojantys maisto produktai buvo pakeisti kitais alerginių reakcijų nesukeliantiais produktais. Praėjus vieneriems dietos laikymosi metams, atliktas pakartotinis 109 (70,8 proc.) vaikų (tiek atvyko pakartotinai) ištyrimas. Visiems pakartotinai atvykusiems vaikams įvertinta atopinio dermatito klinikinė eiga (atvykusių vaikų mamos atsakė į klausimus apie per paskutinius 12 mėn. buvusius vaiko alerginio išbėrimo paūmėjimus, virškinimo sistemos sutrikimus ir vartotus vaistus), atopinio dermatito eigos sunkumo laipsnis (SCORAD indeksas), atliktas odos lopo mėginys su 25 maisto alergenais.

Rezultatai. Vaikai, kurie laikėsi individualios dietos, buvo jaunesni nei vaikai, kuriems dietos dėl įvairių priežasčių nepavyko laikytis ($p=0,01$). Iš tiriamųjų, kurie laikėsi jiems skirtos dietos, net 49 (62,8 proc.) pakartotinai tirtiems vaikams alerginis išbėrimas buvo išnykęs ir nereikėjo vartoti vaistų nuo alergijos. Pacientams, besilaikantiems jiems skirtos individualios dietos, statistiškai reikšmingai rečiau per 12 mėnesių buvo paryškėjęs alerginis išbėrimas ($p=0,01$), reikėjo mažiau vartoti priešalerginių vaistų nei vaikams, nesilaikiusiems dietos ($p=0,001$). Vaikų, kurie laikėsi individualios dietos, atopinio dermatito eiga buvo lengvesnė nei vaikų, kurie dietos nesilaikė ($p=0,001$). 28,2 proc. atopiniu dermatitu sergančių vaikų per vienerius dietos metus toleravo anksčiau juos alergizavusius maisto produktus. Palyginus odos lopo mėginių rezultatus prieš dietos skyrimą ir po vienerių metų, nustatyta, kad tik grikių, avižų, jautienos ir kakavos odos lopo mėginys statistiškai reikšmingai nepakito, o kitiems maisto produktams nustatytas rečiau teigiamas odos lopo mėginys. Vaikai, kurie laikėsi dietos, statistiškai rečiau skundėsi virškinimo

sistemos sutrikimais negu vaikai, kurie nesilaikė dietos ($p=0,01$). Jie statistiškai reikšmingai rečiau skundėsi pilvo skausmu ($p=0,01$), pilvo pūtimu ($p=0,044$), vidurių užkietėjimu ($p=0,035$).

Išvados. Atopiniu dermatitu sergantiems vaikams skyrus individualią, subalansuotą, pakaitinę dietą, pavyko visiškai sureguliuoti mitybą įvairiose amžiaus grupėse ir turėjo didelę teigiamą reikšmę atopinio dermatito klinikinei eigai. Vaikams, besilaikantiems jiems skirtos dietos, statistiškai reikšmingai rečiau buvo paryškėjęs alerginis išbėrimas ir reikėjo mažiau vartoti priešalerginių vaistų nei vaikams, nesilaikiusiems dietos. Vaikų, kurie laikėsi individualios dietos, atopinio dermatito eiga buvo lengvesnė nei vaikų, kurie dietos nesilaikė. Trečdalis atopiniu dermatitu sergančių vaikų per vienerius dietos metus tapo tolerantiški anksčiau juos alergizavusiems maisto produktams. Po vienerių metų dietoterapijos skyrimo daugeliui maisto produktų nustatėme rečiau teigiamą odos lopo mėginį, išskyrus tik grikius, avižas, jautieną ir kakavą. Vaikai, kurie laikėsi dietos, rečiau skundėsi virškinimo sistemos sutrikimais: pilvo skausmu, pilvo pūtimu, vidurių užkietėjimu nei vaikai, kurie nesilaikė jiems skirtos dietos.

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