manifestations was scaled from 0 to 3 points: 0 – absent, 1 – weak, 2 – moderately expressed, 3 – acutely expressed. Prevalence was evaluated according to the rule of "nine", where the area of the palmar surface of the wrist is taken as unit. The SCORAD Index formula is: A/5 + 7B/2 + C. In this formula, "A" is defined as the extent (0-100), "B" is defined as the intensity (0-18) and "C" is defined as the subjective symptoms (0-20). The maximal score of the SCORAD Index is 103. Children were divided into groups according to the severity of the clinical course of the disease (light – up to 20 points, moderate – 20-40 points, severe – more than 40 points). Medical intervention included a collection of 3-5 ml of blood from the elbow vein by the single use system BD Vacutainer Sofety-Lok (Bectar Dickinson and Company, USA). The IgE level was determined by an indirect immunofluorescence method using an auto-analyzer, and the test was considered positive at IgE > 0.35kE/l.

TARC measurements in serum were performed by a plate (Becton Dickinson Franklin Lakes, NJ), coated with mouse monoclonal antibodies against human TARC (MAB364, R & D Systems, Abingdon, UK). The optical densities were measured at 450 nm using Bio-Rad microplate reader (Biorad Laboratories, Inc., Hercules, CA). A recombinant human TARC (364-DN, R & D Systems) was used as a standard. The concentration was calculated according to the standard curve, obtained by the curve selection program. The minimum TARC level determined was 20 pg/ml. Indicators were considered normal: Infant 1-2 years: < 998 pg/ml, Child 2-18 years: <743 pg/ml [29]. The statistical processing of the study results were carried out by standard algorithms of variation statistics, for calculations were used the Excel software (Microsoft Office, USA), Statistica 6.0 and the on-line SISA calculator (Simple Interactive Statistical Analysis), using correlation and parametric analysis. Average values were given as (M ± m), where «M» is the average value of the indicator, «m» is the standard error of the average; «n» – the volume of the analyzed group. Data was analyzed using the Mann-Whitney U-criterion. Correlation coefficients were determined using Spirman's rank correlation test. All comparisons were 2-sided. The values $p < 0.05$ were considered statistically significant.

RESULTS

Often, AD has occurred in young children, particularly from 2 to 6 years of age. According to the results of the study, the most prevalent in children with AD is food sensibilisation, which is found in 89.9% of cases. Almost half of the patients were sensitive to home dust and bacterial allergens, one third – to the medicinal ones; and about one quarter – to the pillow feathers, epidermal and pollen allergens, and in 48.2% of cases – in combination with each other (Fig. 2).

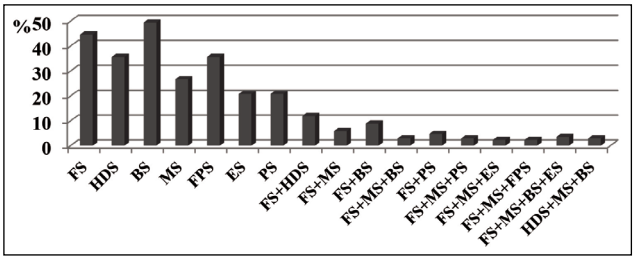

FIGURE 2. *FS – food sensibilisation, HDS – home dust sensibilisation, BS – bacterial sensibilisation, MS – medical sensibilisation, FPS – feather pillow sensibilisation, ES – epidermal sensibilisation, PS – pollen sensibilisation*

With age, the level of allergenic IgE in the blood of patients with AD and sensibilisation increased (Table 1).

TABLE 1. *Age dynamics of IgE parameters in the blood of examined children*

Indicator	Age (years)			
	1-6	7-10	11-14	15-18
IgE, kO/l	80.6±19.1	106.6±23.1	234.9±22.8*	312.5±33.9*,**

*Note: *the indicator difference in groups of 7-10 years and 11-14 probable, **the indicator difference in groups of 11-14 years old and 15-18 probable, p <0,05.*

Most children under observation had a light or moderate severity of AD. The distribution of children is presented in Table 2.

TABLE 2. *Distribution of children with AD according to age and severity of AD*

Age (years)	Severity degree of AD (Number)			Total
	light	moderate	severe	
1	4	2	2	8
2	5	3	2	10
3	8	5	4	17
4	8	5	3	16
5	6	6	3	15
6	7	3	2	12
7	5	6	0	11
8	4	3	3	10
9	4	3	2	9
10	5	3	2	10
10	3	4	3	10
11	4	2	2	8
12	3	3	1	7
13	4	1	1	6
14	3	2	0	5
16	2	2	0	4
17	3	2	0	5
18	4	1	0	5
Total	80	56	30	168

CONCLUSIONS

Nowadays, for successful treatment of atopic dermatitis a certain and objective assessment of clinical manifestations is required. TARC can be considered as a useful clinical biomarker that can be used in pediatric practice to accurately assess invisible subclinical disorders, assess the severity of atopic dermatitis and to predict its course. Further studies of TARC levels in tissues and peripheral blood in patients with atopic dermatitis may help to explain the role that this chemokine plays in the pathogenesis of the disease and pave the way for further therapeutic tactics.

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