# A child with bronchial asthma – his functioning in a peer group

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### Abstract

**Purpose:** Aim of the study is to show problems parents have to account for in the process of treatment and their knowledge how to solve them.

Material and methods: Fifty girls and boys aged 5-12 years were participated in this study. The research employed an own questionnaire prepared for this particular purpose. It consisted of three parts: the first part dealt with social-demographic data, the second one with the age of a child at the onset of asthma and accompanying it problems, and finally, the third part was concerned with the knowledge of parents about asthma and its treatment at the time of exacerbation.

**Results:** Out of all children under study, 60% were boys and 40% were girls, 85% of them come from a district town and 15% from rural areas. Almost 42% of parents answered that the most frequent reaction of the peers and particularly children attending the same class to this information was understanding. Only 11% of peers were able to help the children with bronchial asthma in difficult moments.

Conclusions: The study has shown that hay fever and atopic dermatitis accompanying bronchial asthma markedly make their functioning among peers difficult. Bronchial asthma makes most children suffering from it resign from favorite games and plays connected with physical effort. The attitude of peers to these children can be described as indifferent.

Key words: bronchial asthma, child, children, knowledge.

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## Introduction

Human beings have suffered from bronchial asthma since the beginning of existence. The disease has reached its epidemic occurrence now and in developed countries it spreads in an alarming rate, particularly in children. This disease may have its onset at any age, but most often its beginnings can be observed in the first years of a child's life [1,2].

It is thought, at present, it is a chronic inflammatory disease manifested by variable intensity bronchi obturation characterized by attacks and exacerbations of cough, presence of wheeze, the feeling of tightness in the thorax and difficulties in breathing [1,3].

These changes are reversible but sometimes they may lead to life-threat or even death of a child. Taking care of a child with bronchial asthma demands bigger effort than in the case of a healthy one. His or her upbringing should follow the normal course as if he was as a healthy child. It must be remembered that this child cannot grow up with the burden of a serious disease and should never be in the center of continuous interest of overprotective parent, far from the peers, games and playing with other children. Parents should aim at providing the child with a joyful and happy childhood [4,5].

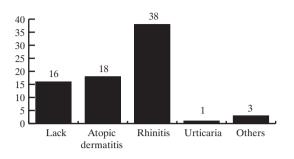
The care of a bronchial asthma child demands more work and effort than in the case of a healthy one but his or her upbringing ought to be absolutely normal. Very few reports in literature on the problem of children with the diagnosed bronchial asthma made us carry out a study of this issue.

The aim of the study is to show problems parents have to account for in the process of treatment and their knowledge how to solve them.

### Material and methods

A survey among the parents of children with bronchial asthma was carried out in The Out-Patient Pulmonological Department of The Public Health Care Unit in Inowrocław.

Figure 1. Coexistence the other allergic diseases in bronchial asthma children



Fifty girls and boys aged 5-12 years were qualified for the study. The most numerous group was 8-year-old boys -42% of all children under study.

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#### Results

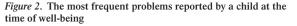
Out of all children under study, 60% were boys and 40% were girls, 85% of them come from a district town and 15% from rural areas.

The family history of asthma was very important for the study. It turns out that in the majority of cases-as many as 96% – there were no documented incidents of asthma in the closest family or past generations. In 4% of the cases only – boys living in towns – the fathers suffered from asthma. In the examined group, 43% of children had the onset of asthma between the 5th and 9th year of life. In 27% of cases, it was diagnosed at the age 1 to 4 years, and in 3% of cases when children were 11.5 years old.

The studies and their analysis show that in 38 (76%) of cases asthma was concomitant with hay fever, and more rarely with atopic dermatitis – 18 (36%). Lack of any concomitant disease was noted in 16 (32%) children. Urticaria was found in one child only. In a group of 11% of children, parents reported allergy to antibiotics from the penicillin group and Biseptol. No allergy to medicaments was confirmed in the remaining 89% of children (*Fig. 1*).

The authors were interested in what posed biggest problems for children at the time of well-being. What, according to them, prevented them from normal functioning at the time when they do not feel any ailments connected with the disease? The majority of parents – 60% think that the necessity of avoiding favorite games and plays connected with physical effort is a serious limitation for children and does not let them have normal relationships with peers. These limitations disturb the emotional development of a child and they also affect the social development of their children (*Fig. 2*).

Interesting results were obtained when analyzing the answers to the question "What was the reaction of peers when they



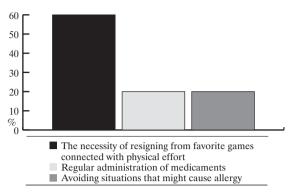
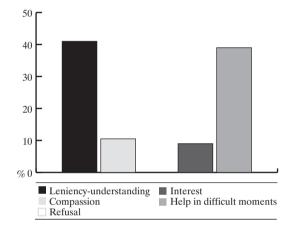


Figure 3. Peer reaction to the disease

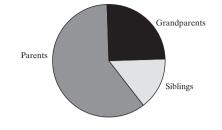


learned about your child's disease?" The majority of parents, 42%, answered that the most frequent reaction of the peers and particularly children attending the same class to this information was understanding. According to the parents and their children, the peers accepted the information about the disease but at the time of exacerbation or attacks of the disease they were indifferent and could not react properly or inform a teacher and parents about the incident. Only 11% of peers were able to help them in difficult moments. They were mostly 11 or 12 years old and have already had contact with the disease (*Fig. 3*).

Most often, the problems of a sick child are solved by his or her parents, particularly mothers (65%), then by grandparents (22%) who take care of the child when parents work or are absent. Only in 13% of children with bronchial asthma, older sisters or brothers looked after the children and helped them at the time of exacerbation of the disease (*Fig. 4*).

The question "Do you have the necessary knowledge to prevent the attacks of asthma?" was in 80% answered positively. The parents think they have enough knowledge to give professional help to their child if necessary i.e. at the time of dyspnea paroxysm.

The analysis of questionnaires has shown that the greatest source of knowledge about their child's disease is medical staff (40%). Many respondents (20%) think that they get most information from their own observation and the experience of care Figure 4. Solving problems of a sick child



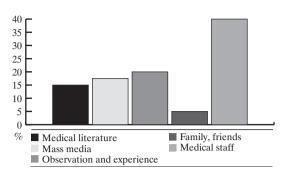
of an asthmatic child. Friends and family seem to be the least reliable source of knowledge about the effects and prevention of the dyspnea attacks. Medical literature and the media provide only the basic knowledge about the disease but do not say how to cope with difficult situations (*Fig. 5*).

### Discussion

Asthma belongs to the diseases that may pose serious threat to health and life if it is misdiagnosed, diagnosed too late or improperly treated. Nowadays, bronchial asthma is considered to be a serious health, social and economic problem. It concerns a marked group of the society and its morbidity rate is high, especially in children up to 5 years of age [4-6]. This ailment seriously disturbs their physical and psychic development. It also markedly lowers the quality of their lives. Specific and difficult conditions imposed on children with bronchial asthma are the source of strong and negative emotions. The knowledge of risk factors, proper education of parents and children, and the ability of taking fast actions in order to achieve total or partial elimination of risk - the dyspnea attack - lets the child function in a peer group in a normal way [7-9]. Asthma in children is connected with increased susceptibility to diseases, thus, it was interesting for us to find how it influenced the child, his relatives and peers [3,8]. The other purpose of the study was to find out if this ailment decreased the child's activity or prevented him from participation in activities he wanted to take part in.

In the 70ies of the last century, the studies on the influence of the asthma child behavior on the course of the disease were started. Then, the first educational programs for patients and their families were created. The first centers offering systematic classes for patients teaching how to learn proper reactions and behaviors in order to control the course of asthma were also created at that time. Nowadays, national educational programs connected with the control of allergy and asthma in children and adults are being created and implemented [4,5,7]. Thanks to them, the patients and their families find the answers to many nurturing them questions. They learn about where the allergens may appear and how to avoid them, how to lessen the tension and stress connected with the disease, how to control the disease and how to prevent or decrease the symptoms of dyspnea. The parents constitute a special educational group as they are the ones who are responsible for their children and their education. They also learn what to do at the moments when their child's life is at risk. It has been observed that parents who are themselves asthma vic-





tims are more persistent in caring of the child. Most parents have got strong motivation and are open to any information or idea on asthma. It is mothers, particularly, who strongly react to any breathing disturbance in their child. After some time, the children feel that every breathing disturbance brings about mother's care and worry. In consequence, all people related to the sick child, emotionally or formally are involved. Thus, the system includes the family, work environment, friends, teachers, other asthma victims, medical staff, psychotherapists and social workers.

#### Conclusions

The study has shown that hay fever and atopic dermatitis accompanying bronchial asthma markedly make their functioning among peers difficult. Bronchial asthma makes most children suffering from it resign from favorite games and plays connected with physical effort. The attitude of peers to these children can be described as indifferent. In the opinion of the majority of parents and other older children – friends of asthma sufferers, their knowledge about bronchial asthma is sufficient.

#### References

 Januszewicz P. Astma oskrzelowa – standardy medyczne. Miesięcznik dla lekarzy pediatrów, 2002; 3: 5.

2. Droszcz W, Madalińska M. O astmie popularnie. PZWL, Warszawa, 1997; 3-36.

 Kurzawa R, Want-Krzak M. Analiza wybranych czynników wpływających na stopień ciężkości astmy oskrzelowej. Acta Pneumologica et Allergologica Pediatria, 2000; 2: 7-11.

 Gołębiowska A. Standard przygotowania dziecka w wieku szkolnym chorego na astmę do samokontroli i samoopieki. Standardy pielęgniarskie, 2002; 35-8.

 Zubrzycka R, Emeryk A. Wpływ astmy oskrzelowej u dziecka na funkcjonowanie jego rodziny. Alergia Astma Immunologia, 2002; 7; 21-6.

6. Martinez FD. Asthma and wheezing in the first six years of life. N Engl J Med, 1995: 332: 133-8.

 Weiss ST. Effect of asthma on pulmonary function in children a longitudinal population – based study. Am Rev Respir Dis, 1992: 145: 58-64.

8. Zubrzycka R, Emeryk A. Medyczne i psychopedagogiczne determinanty funkcjonowania dziecka z astmą oskrzelową. Acta Pneumonologica et Allergologica Pediatria, 2002; 5: 15-9.

9. Jędrychowski W, Flak E, Mróz E. Badanie nad zależnością między przewlekłymi objawami ze strony układu oddechowego a wskaźnikami wentylacji płuc w populacji dzieci w wieku szkolnym. Pediatria Polska, 1999; 74: 643-9.