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Family's Concerns and Associated Phobias about Using Asthma Medications in Children

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Abstract

Introduction. Asthma is one of the most common chronic diseases, with more than 300 million patients presented through the world.

Purpose. To know the family's concern and their phobia from usage of childhood asthma medications.

Materials and methods. A cross-sectional study was done by interviewing the parents, concern and their phobia from the use of childhood asthma drugs, the study had carried out upon patients from outpatient clinics and hospitalized patients that included children age from 1 to 14 years old who had bronchial asthma, the question were concentrated on the parents concern and phobia about childhood asthma medications usage and their side effects.

Results. This study involved 205 asthmatic children families, the main parents concern was about the outcome of the disease 62 (30.2%) and the side effects of medications 66 (31.7%), also study shows that phobia from drugs effect as obesity 32 (15.6%), growth failure 26 (12.7%), adduction 28 (13.7%) and palpitation 20 (9.8%).

Conclusion. There was much family's concern about childhood asthma fade and also more worries about the effects of childhood asthma medications.

Keywords: family's concern, drugs phobia, asthma medications, bronchial asthma, childhood asthma

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Обеспокоенность семьи и фобии, связанные с использованием лекарств от астмы у детей

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Резюме

Введение. Астма – одно из самых распространенных хронических заболеваний в мире. В настоящее время ей страдают около 300 миллионов человек.

Цель. Выяснить, что вызывает обеспокоенность и фобии в семье в связи с использованием лекарств от астмы у детей.

Материалы и методы. Проведено поперечное исследование путем опроса родителей, обеспокоенных использованием лекарств от астмы у детей. В исследование были включены педиатрические пациенты поликлиник и стационаров в возрасте от 1 года до 14 лет, страдающие бронхиальной астмой. Основные вопросы касались обеспокоенности и фобий родителей по поводу использования лекарств от астмы у детей и их побочных эффектов.

Результаты. Всего в исследовании приняли участие 205 семей, имеющих детей с астмой. Основное беспокойство родителей вызывали исход заболевания (62 (30,2%) случая) и побочные эффекты лекарств (66 (31,7%) случаев). Кроме того, исследование показало, что среди фобий, связанных с последствиями приема лекарственных препаратов, были развитие ожирения – в 32 (15,6%) случаях, отставание в росте – в 26 (12,7%), аддукция – в 28 (13,7%) и учащенное сердцебиение – в 20 (9,8%).

Заключение. Основное беспокойство в семьях вызывали вопросы, связанные с лечением от астмы детей, а также последствия применения лекарств от астмы в детском возрасте.

Ключевые слова: обеспокоенность семьи, фобия приема лекарственных препаратов, лекарства от астмы, бронхиальная астма, астма у детей

■ INTRODUCTION

Asthma is one of the most common chronic diseases, with more than 300 million patients presented through the world. The rise in asthma prevalence, morbidity, and mortality has brought public health attention [1]. Knowledge of family about child asthma program reduce symptoms persistence, improve treatment adherence and result in good asthma outcome [2].

Insufficient information of the parents is the main cause for noncompliance. The other reasons were a phobia of the parents from the side effects of asthma Medications [3].

Regarding medicine intake in pediatric patients especially in children with acute or chronic medical illness (e.g., epilepsy, asthma and diabetes) nearly 30–70% of them have poor adherence due to Prolong treatment duration [4]. Pediatrics patients hospitalized for asthma, those who had more family conflict as parents' anger, aggression, and conflict hospitalizations [5]. In children parents and other caregivers are much responsible for disease treatment that involves communication with pediatrician, drugs administration, diagnosis and avoidance of triggers, regulate medical appointment [6].

There are many etiologies of underuse of controller medication, research has revealed that among children with persistent asthma only 50% were prescribed a controlled drugs by their physician [7]. 60% of parents worried regarding use of inhalers and expressed their concern. They used inhalers only when their child has serious attack. 68% of parents concerned about adverse effects of steroid inhalers. Furthermore, parental concern regarding medication dependency was reported in 42.7% which was reflected as poor adherence [8]. Considering potential side effects of inhaled steroids on growth, bone density, hypothalamic – pituitary – adrenal axis, an excessive or improper use of inhaled steroids should be avoided [9].

■ PURPOSE OF THE STUDY

To know the family's concern and their phobia from usage of childhood asthma medications.

■ MATERIALS AND METHODS

This study was done as cross sectional study that interviewed the families of asthmatic children about their concern and phobia from use of childhood asthma medications, those were visiting an outpatient clinics and hospitalized patients in Basrah city in the south of Iraq. The study was carried out from October 2023 to April 2024, the questionnaires were regarding the parents' concern about childhood asthma that involved the medication usage and their worries from the their side effects, for example palpitation, adduction, short stature, obesity, growth failure and effect on immunity, also they had asked about the methods of giving drugs to their children that were including the doses, duration and the ways of drugs administration.

■ RESULTS

Socio-demographic characteristics of patients listed in table 1. This table shows the socio-demographic characteristic of the patients, reveals that sex distribution of patients, the male was 130 (63.4%) where female was 75 (36.6%). The residence distribution shows most of patient was urban 161 (78.5%) where rural patients were 44 (21.5%). The table

Table 1
Socio-demographic characteristics of patients

		No.	%
Sex	Male	130	63.4
	Female	75	36.6
Living	Urban	161	78.5
	Rural	44	21.5
Education level of parents	Illiterature	7	3.4
	Primary school	51	24.9
	Secondary school	89	43.4
	University	56	27.3
	Higher education	2	1
Smoking in the family	Yes	115	56.1
	No	90	43.9
Sources of information	Pediatrician	116	56.6
	General practitioner	51	24.9
	Medical staff	5	2.4
	Non-medical staff	13	6.3
	Not received	20	19.7
Age category	1–4 year	107	52.7
	5–10	90	44.3
	>10 year	8	3

also explore the level of education of parents and whether there is smoking in the family or not, other part of the table includes the age category distribution that shows the first category age from 1–4 years old represents the high value 107 (52.7%). Other part of the table regard the sources of disease information of parents.

Family concern about childhood asthma treatment listed in table 2. This table reveals the main parents' concern on asthma treatment, the great family's concern was on upon the outcome of the disease 62 (30.2%) and side effect of medications 65 (31.7%). The concern does drugs cure the disease 45 (22%). The table also explore parents' believe about childhood asthma outcome. This table also shows the way of use of child asthma medications, there are 46 (22.4%) of patients had wrong doses and duration of giving medications. On other hand 25 (12.2%) of patients shows wrong method of drugs administration.

The table below shows result about the parents phobia from childhood asthma medication. 43 (21%) of parents had no phobia from use of asthma medication for their children while high percentage were concern about asthma medications. The high results of phobia were from obesity 32 (15.6%), adduction 28 (13.7%), effect on growth 26 (12.7%), palpitation 20 (9.8%) and stature 17(8.3%). The less phobia from effect on skin 2 (1%), on bone 3 (1.5%) and oral thrush 2 (1.5%) (Table 3).

The table 4 illustrate the types of drugs that used by parents during the acute attacks, the most frequent medications had used were corticosteroid plus short acting Beta-agonist and antihistamine 53 (25.9%) and corticosteroid. Beta-agonist and leukotriene antagonist 55 (26.8%), additional 11 (5.4%) of patients were using herbal treatment.

Table 2
Family concern about childhood asthma treatment

	No.	%	
Family's concern about asthma treatment	Dose of medications	9	4.4
	Ways of usage of medication	24	11.7
	Side effect of medication	65	31.7
	Does medication cure the disease	45	22.0
	Outcome of the disease	62	30.2
Family idea on prognosis	Cure	63	30.7
	Continue to adult life	38	18.5
	Unknown	104	50.7
Way of use of drugs	Proper usage	59	28.8
	Wrong dose	23	11.2
	Wrong duration	32	15.6
	Wrong method	25	12.2
	Wrong dose and duration	46	22.4
	Wrong medications	20	9.8
Route of drugs	Prefer oral route	194	94.6
	Other	11	5.4

Table 3
Phobia from usage of asthma medications

Phobia from usage of asthma medications	No.	%
No phobia	43	21.0
Hypertension	2	1.0
Adduction	28	13.7
Palpitation	20	9.8
Tremor	9	4.4
Obesity	32	15.6
Effect on growth	26	12.7
Effect on immunity	10	4.9
Effect on stature	17	8.3
Effect on the bone	3	1.5
Effect on GIT	10	4.9
Thrush	3	1.5
Effect on skin	2	1.0
Total	205	100.0

The table 5 represents the type of long term medications that had been used by patient, from the result there was high percentage of patient (40.5%) not using controller drugs, few patient 21 (10.2%) using inhaled steroids.

■ DISCUSSION

Our study shows high proportion of parents phobia and concern for childhood asthma medications side effects and also explores some improper treatment regimen including the wrong method of giving drugs as example improper use of nebulizer also includes

Table 4
Medications use in acute attack

Medications use in acute attack		No.	%
	Steroid	6	2.9
	Beta-agonist	17	8.3
	Steroid and Beta-agonist	45	22.0
	Steroid, Beta-agonist and antihistamine	53	25.9
	Steroid, Beta-agonist and leukotriene modifying agents	55	26.8
	Antibiotic and Beta-agonist	26	12.7
	Beta-agonist and antihistamine	3	1.5
Herbal use	Use	11	5.4
	Not use	194	94.6

Table 5
Type of long term drugs used by patient

Type of long term drugs used by patient	No.	%
No use	83	40.5
Mast cell stabilizer	36	17.6
Leukotriene modifying agent	42	20.5
Inhaled steroid	21	10.2
Beta agonist on need	19	9.3
Antihistamine	4	2.0

incorrect dose or duration of treatment. The majority of parents express some sort of phobia from using childhood asthma drugs nearly 162 (79%) many studies describe similar results as study was done in Lebanon shows that. Parents of children with asthma often express a concern about the safety of asthma medications. About 66% of the parents were concerned about the side effects of asthma medications (91%), inhaler dependency (86%), cost of the inhaler (34%), and difficulty of its use (15%) [10]. Other finding of our study illustrates the type of medications that were used by patients as 26.8% of patient were taking corticosteroid plus short acting Beta-agonist with leukotriene antagonist, 25.9% were using steroid plus short acting Beta agonist with antihistamine. When compared with other research from Saudi Arabia the reveals that maximum number of patients 78.9% were prescribed beta-agonist more specifically albuterol (salbutamol).

Anticholinergic were present in approximately 31.6%, steroid represents the second largest prescribed drugs [11]. Our study illustrates that 46 (22.4%) of parents had wrong dose and duration of drugs usage where 25 (12.2%) had wrong method of giving asthma drugs, compared with other study Was done in New Delhi, India at the tertiary hospitals, parents still unsure in their knowledge of asthma and were not confident with self-management of their child's asthma. many findings as example the suboptimal use of asthma drugs and the belief of 'steroid phobia' have been reported [12]. There is different in usage of asthma drugs in children in one study was done in the United States Among potential asthma acute attack controller medications, only 59% of children with asthma were used any anti-inflammatory drugs that includes oral corticosteroids [13]. On review of parents concerns and phobia regarding side effect of childhood asthma medication in our study main concern or fear were about drug addiction (13.7%), effect on growth (12.7%),

obesity (15.6%) and palpitation (9.8%), while in other study parents worry From short and long term side effects of oral steroids. Nearly, half (45%) of parents specifically feared that their child would become dependent on asthma drugs, more than one third (36%) of the families reported try to avoid using bronchodilators during acute attack of child asthma [14]. Decreasing risks for non-adherence may be an effective action strategy. Most risks for non-adherence, can be affected by physicians – although reducing the complexity of the asthma regimen by communicating effectively with parents about drugs use, and by identifying and dealing with patient/family misconception of asthma medications adverse effects [15]. Herbal preparations are much used in the treatment of asthma, they found 26 trials of 20 herbal preparations, the majority of studies reported no significant differences in measures of lung function or corticosteroid dosage and no adequate data for primary outcome was possible [16]. The prevalence of use of herbal for breathing disorders was low in most centres. However, some exception such as Hamburg and some of the French centres with a high prevalence of use [17].

Therapy may not give to asthmatic children for many reasons, one of them the families did not consult a pediatrician when their children having symptoms of the disease, in another hand children at school age more taking controller medication than adolescence age group [18].

Our study illustrate the type of drugs that used by parents during the acute attacks, the most frequent medications had used are corticosteroid plus short acting Beta-agonist and antihistamine 53(25.9%) compared with other research was done on Colombian patients Salbutamol was the most commonly used inhalator by asthma patients, followed by beclomethasone, both of which are recommended in the initial steps of management.

The use of short acting Beta agonist as mono therapy for symptom relief is not recommended in the new guidelines. However, the frequency of SABA use corresponds to a nearly 1:1 ratio with ICSs (inhaled corticosteroids), which are significant drugs for long-term control in another hand nearly 5% of patients aged 5–11 years and 25% of those older than 12 years were receiving ICS/LABA combination [19]. Other results were regarding use of long term childhood asthma medications there was high proportion of patients were not using controller drugs, this might be explained by fact either the disease of grade that not need prescribing controller medications or the drugs had not prescribed by the pediatrician or the family had phobia from use of long term controller medications, the use of inhaled steroids were only (10.2%) this might reflects the parents phobia from use of inhaled steroids in children, compared with other study that described adherence to inhaled corticosteroids is likely to diminish over time on treatment. In their full cohort 22.3% of subjects had been dispensed inhaled corticosteroids sometime during the year before the index date but only 3.8% used them regularly, while in the hospitalized cohort 34.7% were given inhaled corticosteroids but only 7.5% used them regularly. Thus, only 15–20% of user take them regularly and draw the full benefit [20].

■ CONCLUSION

Our study express the main parents' concerns about childhood asthma medication that were the phobia from their side effects and also concern upon the outcome of their child disease. Other part of study illustrates that there are many family mistakes regarding usage of childhood asthma drugs including dose, duration and method of drugs administration.

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