

Attitude and Knowledge of Patients with Asthma and Allergic Rhinitis who Received Allergen Immunotherapy in Phramongkutklao Hospital

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Objective: To determine attitude and knowledge of patients with asthma and allergic rhinitis who received AIT (Allergen Immunotherapy).

Study design: A cross-sectional analytical study.

Material and Method: A cross-sectional descriptive study was conducted in the patients with allergic asthma and allergic rhinitis whom were treated with AIT at the Allergy Clinic, Phramongkutklao Hospital between February 1st 2008 to October 31st 2008. Standardized questionnaires were used to collect patients demographic data, attitude and knowledge.

Results: A total of 100 patients were enrolled in this study. Sixty-six percents of pateints expected that AIT would improve their quality of lifes and could prevent their disease recurrence. Fifty three percents of patients expected that their allergic diseases could be cured completely while 22 percents of patients expected that AIT could prevent the occurrence of a new allergic disease. Only 42 percents of patients understood that AIT would improve the conditions after treatment at least 6 months. Twenty two percent of patients knew that AIT was safe and there was no serious side effect.

Conclusion: Patients treated with AIT had still lack of knowlegde about AIT treatment and the potential serious side effect that could occur.

Keywords: Allergen immunotherapy, Asthma, Allergic rhinitis

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Allergic diseases are the disorders that the immunity of the body works abnormally. They are caused by the production of Ig E antibodies against allergens such as medication, food, inhaled particles; for examples dust, dander and house dust mite or any insect like cockroach. Moreover, it might be grass pollen, weed pollen, fungus, dog dander or cat dander and any insect like bee, ant or wasp⁽¹⁾. The occurrence of allergic rhinitis is ranged between 10 to 25 percents of all people around the world⁽²⁻⁵⁾. Many reports showed that the number of patients with allergic diseases has increased gradually especially in the big cities, which have pollution problems. Allergic diseases can present from minimal symptoms to serious ones which lead to poor quality of life⁽⁶⁻¹⁵⁾.

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Treatment of allergic diseases includes avoidance of allergens which is the main treatment, medications such as antihistamine, corticosteroid and also allergen immunotherapy (AIT)^(1,16). AIT was used since 1911 by Noon L and Freeman J. The objective of using this method is to reduce the reaction to allergens and decrease the symptoms⁽¹⁷⁾. Eventually, patients could take less medication. However, AIT takes a certain period of time to be completed which may be 3-5 years response on the reaction to the treatment of each patient. Initially, increasing doses of allergen extracts (vaccines) are administered one to two times per week, typically reaches a maintenance dose in 4-6 months. Clinical improvement usually occurs within 1 year after the patients reach the maintenance dose. The patients should be evaluated after treatment for 6-12 months⁽¹⁷⁻²⁴⁾. AIT may have serious side effects including anaphylaxis⁽²⁵⁾. Moreover, it is costly to complete the whole AIT⁽²⁵⁻³⁰⁾. Thus if patients or their relatives do not have knowledge and understand the disease itself or the process of AIT, this may affect the treatment.

However there has been no study about attitude, knowledge and understanding of the process, the use and the risk of AIT in Thai allergic patients.

Material and Method

A cross-sectional analytical study was conducted after approval of the ethics committee of Medical Department, the Royal Thai Army. Data were collected from patients with allergic diseases such as asthma, allergic rhinitis who currently received AIT at the Allergy Clinic, Department of medicine, Phramongkutklo Hospital between February 1st 2008 to October 31st, 2008. We recruited patients who received AIT to participate and explained about details in of this study. Patients who were enrolled in this study signed inform consent and were interviewed about their personal history. Patients read and answered the questionnaire independently. Questionnaire used in this study was modified from Sadek et al (2003)⁽⁴⁵⁾ and translated to Thai language. Data analysis was performed and expressed as the number (percentage) for all categorical data.

Table 1. Demographic data of the patients enrolled in this study

Characteristic of enrolled patients	Number (%)
Male	23 (23%)
Female	77 (77%)
Age (average)	45.60 years
Occupation	
Government officer	43 (43%)
Housewife	20 (20%)
Officer	14 (14%)
Other	23 (23%)
Location	
Bangkok	78 (78%)
Other	22 (22%)
Total	100 (100%)

Table 2. Expectations with AIT

Answers	Number (%)
Expected complete recovery	53 (53%)
Expected some improvement	53 (53%)
Expected prevention the development of new allergy	28 (28%)
Expected protection for the development of the asthma	60 (60%)

Results

A total of 100 patients, 23 males and 77 females were enrolled in this study. The mean \pm SD age of the patients was 45.6 ± 14.1 years. The average age of men and women were was 41.4 years and 46.8 years respectively. The majority of the patients (43%) were government officer. Others were housewife, and officers. The majority of them (78%) lived in Bangkok (Table 1).

Expectation and Goal

We asked the patients to specify their expectations of receiving AIT. Fifty-three percent expected complete recovery of their allergies while 53% expected only some improvement. Twenty-eight percents expected that the AIT would prevent the development of new allergy. Additionally, 60% expected that AIT would protect them from acute asthma attack (Table 2).

In response to the question of what was the goal of AIT and why they believed that AIT approach had been recommended to them, 66% of our patients stated that the goal was to improve their quality of lives whereas 73 % believed that it was to or to prevent recurrent exacerbations (73%). Fifty four percents thought that it was to prevent life-threatening events, which 22% believed that it was to prevent the development of a new allergy (Table 3).

Accepted Rate of Treatment Success

We asked the patients what was the accepted rate of treatment success. The results were 23%, 58%, 18% and 1% believed that the accepted rate of treatment success was 100%, 75%, 50%, and < 50%, respectively (Table 4).

Anticipated Timing of Improvement and Duration of treatment

The replies to the question of when a favorable effect of AIT could be anticipated showed that 15% had no idea, while 17%, 26%, and 42% expected the improvement to occur within one month, at one to six months and at least six months from the initiation of treatment, respectively. In response to the question on the duration of AIT, 28% of the patients were unaware of any specified period, 3% expected 6-12 months treatment, 7% expected 1-2 years treatment, while 62% knew that the treatment was supposed to be administrated more than 3 years. The most common aeroallergens which patients had hypersensitivity were dustmite, housedust, cockroaches, pollen, fungi, and

Table 3. Goal and believe about AIT

Answers	Number (%)
To improve their quality of life	66 (66%)
To prevent recurrent exacerbations	73 (73%)
To prevent life-threatening events	54 (54%)
To prevent the development of a new allergy	22 (22%)

Table 4. Accepted rate with AIT

Answers	Number (%)
Success 100%	23 (23%)
Success 75%	58 (58%)
Success 50%	18 (18%)
Success < 50%	1 (1%)

Table 5. Hypersensitivity with aeroallergen

Answers	Number (%)
Dust mite	83 (83%)
House dust mite	80 (80%)
Cockroaches	69 (69%)
Pollen	63 (63%)
Fungi	56 (56%)
Weed pollen	48 (48%)
Dog dander	39 (39%)
Cat dander	36 (36%)

Table 6. Result with AIT treatment

Answers	Number (%)
Excellent	42 (42%)
Moderately	57 (57%)
Not change	1 (1%)
Worse	0 (0%)

Table 7. Decreased in medication after ATI treatment

Answers	Number (%)
No medication used	14 (14%)
Decreased 50%	28 (28%)
Decreased 25%	49 (49%)
Not changed (0%)	9 (9%)

animal dander (Table 5). Almost all patients (99%) reported the improvement of their conditions after AIT (Table 6), and 91% took less medications after AIT treatment. Forty-two percents reduced their medication more than 50% (Table 7).

Adverse effects

Asking their opinion whether or not AIT that could be dangerous or had significant side effects, 11% did not know, 22% considered it to be entirely safe, 40% considered it to be sometimes associated with adverse reactions, and only 17% knew that it was rarely associated with significant risk or side effects.

Discussion

AIT now becomes an important role of treating allergic diseases. It is alternative treatment for patients who cannot control diseases by avoiding of allergens and relieving symptoms with medications. There were studies showing favorable outcome of AIT in allergic rhinitis⁽²²⁻²⁴⁾. The disadvantage of this treatment is taking long duration of treatment which is at least about 3-5 years. Response of treatment will occur about 6 months after receiving AIT or later in some cases. In addition, serious side effects including anaphylaxis might occur and the whole course of AIT is expensive^(25,26,31,32). Education about patients' disease and AIT is needed before and during AIT treatment to improve their compliance, the success and safety of this therapeutic modality^(27-30,33-44).

Sade et al⁽⁴⁵⁾ studied about the knowledge and the expectation of allergic patients whom were treated with AIT by questionnaire-based studying method. They evaluated the attitude, expectation and knowledge of patients about treatment process, duration and safety of treatment. They studied 132 patients, which consist of 77 males and 57 females. Thirty-nine percents of example group expected that their allergy would be complete recovery. Compared with our study 53% expected complete recovery of their allergy. They also found that one in five patients did not know when the improvement after the initiation of treatment would occur. Eighteen percents expected that the symptoms would be better within a few days or weeks after the treatment. For the understanding about the danger or undesirable conditions that may happen, 33 percents did not know about this matter before. Thirty-five percents thought that treatment was safe and had no side effect. Only 32% were aware that AIT might have some potential risk or adverse effects, which 24.2% failed to identify at least one of the allergens they were

receiving. Patients who were interviewed during their first 6 months of AIT had more knowledge than those who had been undergoing long-term treatment. The researchers concluded that there was a grave lack of knowledge and numerous misconceptions among substantial numbers of patients receiving AIT. More educational effort is needed to increase patients' knowledge about AIT before and during treatment⁽⁴⁶⁾.

In our study, we found that our patients had more high expectation in AIT. Fifty-three percents expected complete recovery of their allergy. High expectation without clearly understanding about their diseases and treatment may lead them to disappointment and loss to follow-up if treatment fails or major adverse effects occur.

The question about duration of treatment, anticipated timing of improvement and opinion about the adverse effects of AIT showed that many patients lack of knowledge about their treatment. Fifty-eight percents of the patients did not know that treatment response would occur about 6 months after treatment started. Thirty-eight percents of the patients did not know that the duration of treatment was at least 3 years. We found that 11% of our patients did not know about adverse effects and 22% considered AIT to be entirely safe. It should be concerned that many patients (33%) did not know about adverse effects including anaphylaxis while they received AIT treatment.

In conclusion, before starting the treatment with AIT, what we must do regularly is giving the information about this treatment to make patients understand the process of treatment, the objectives of treatment, its serious side effects, the duration of treatment and when the result of treatment happens. Physicians should also recommend their patients to avoid anything they are allergic to. All process is necessary to help AIT treatment succeed with the most efficacy, minimal side effects, best compliance and lowest loss of follow-up.

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ทัศนคติและความรู้ของผู้ป่วยโรคหืดและโรคจมูกอักเสบภูมิแพ้ที่ได้รับการรักษาโดยวิธีการฉีดวัคซีนภูมิแพ้ในโรงพยาบาลพระมงกุฎเกล้า

อธิก แสงอาสาวิริยะ, กิตติพงษ์ ผลสุวรรณชัย

วัตถุประสงค์: เพื่อทำการศึกษาทัศนคติและความรู้ของผู้ป่วยโรคหืด และโรคจมูกอักเสบภูมิแพ้ที่ได้รับการรักษาโดยวิธีการฉีดวัคซีนภูมิแพ้ในโรงพยาบาลพระมงกุฎเกล้า

การออกแบบ: การศึกษาวิเคราะห์แบบตัดขวาง

วัสดุและวิธีการ: ได้ทำการศึกษาผู้ป่วยโรคหืด และโรคจมูกอักเสบภูมิแพ้ที่ได้รับการรักษาด้วยวิธีการฉีดวัคซีนภูมิแพ้คลินิกโรคภูมิแพ้ของโรงพยาบาลพระมงกุฎเกล้า ตั้งแต่วันที่ 1 กุมภาพันธ์ พ.ศ. 2551 ถึง 31 ตุลาคม พ.ศ. 2551 โดยการใช้แบบสอบถาม

ผลการศึกษา: จากผู้ป่วย 100 คน ที่ทำการศึกษพบว่าผู้ป่วยร้อยละ 66 ที่ได้รับการรักษาโดยวิธีการฉีดวัคซีนภูมิแพ้มีความคาดหวังว่าวิธีการฉีดวัคซีนภูมิแพ้จะช่วยทำให้คุณภาพชีวิตของผู้ป่วยดีขึ้น ขณะที่ผู้ป่วยร้อยละ 73 คาดว่าวิธีการฉีดวัคซีนภูมิแพ้สามารถป้องกันการกำเริบของโรคได้ ผู้ป่วยร้อยละ 53 คาดหวังว่าวิธีการฉีดวัคซีนภูมิแพ้จะทำให้หายขาดจากโรคภูมิแพ้และผู้ป่วยร้อยละ 22 คาดหวังว่าวิธีการฉีดวัคซีนภูมิแพ้จะช่วยป้องกันการเกิดโรคภูมิแพ้อื่น ๆ ได้อีกด้วย ในส่วนของความรู้ ผู้ป่วยร้อยละ 42 ทราบว่าการรักษาด้วยวิธีการฉีดวัคซีนภูมิแพ้จะทำให้อาการของโรคดีขึ้นหลังจากให้การรักษาไปแล้ว 6 เดือน และผู้ป่วยร้อยละ 22 เข้าใจว่าการให้การรักษาด้วยวิธีการฉีดวัคซีนภูมิแพ้ปลอดภัย และไม่มีโอกาสเกิดภาวะแทรกซ้อนที่รุนแรงจากการรักษา

สรุป: ผู้ป่วยที่ได้รับการรักษาโดยวิธีการฉีดวัคซีนภูมิแพ้ยังขาดความรู้ และความเข้าใจเกี่ยวกับวิธีการฉีดวัคซีนภูมิแพ้ และผลข้างเคียงที่รุนแรงซึ่งอาจเกิดขึ้นได้จากการรักษา
