

## "COMPARATIVE CLASSIFICATION OF METHODS OF IN VIVO AND IN VITRO TESTING OF DUST ALLERGENS IN PATIENTS WITH POLLINOSIS

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### ABSTRACT

Pollinosis disease is considered one of the most urgent problems of modern medicine. Because this disease is accompanied by the development of seasonal allergic rhinitis, conjunctivitis, sometimes bronchial asthma and other symptoms. In the last 15-20 years, the number of allergic diseases on earth is increasing. Pollinosis is the leading share of allergic diseases in Uzbekistan, which means 200 times more than 30 times more than tumor disease than 200 times more than rheumatism.

60 patients with pollinosis were taken, the results were compared by in vivo and in vitro methods.

**Keywords:** ACID, pollinosis, quality of life, allergic rhinitis

### "POLLINOZ BILAN KASALLANGAN BEMORLARDA CHANGLI ALLERGENLARNI IN VIVO VA IN VITRO TEKSHIRISH USULLARINING QIYOSIY TASNIFI"

### ANNOTATSIYA

Pollinoz kasalligi zamonaviy tibbiyotning eng dolzarb muammolaridan biri xisoblanadi. Chunki bu kasallik mavsumiy allergik rinit, konyuktivit ba'zida bronxial astma va boshqa simptomlar rivojlanishi bilan kechadi. So'ngi 15-20 yil ichida yer yuzida allergik kasalliklar soni tobora ko'payib bormoqda. O'zbekistonda allergik kasalliklar yetakchi ulushini pollinoz kasalligi tashkil qiladi, bu o'sma kasalligiga nisbatan 30 marta revmatizmga nisbatan 200 marta ko'p demakdir.

Pollinoz kasalligi bilan kasallangan 60 ta bemor olindi, in vivo va in vitro usullarida tekshirilib natijalar taqqoslandi.

**Kalit so'zlar:** ASIT, pollinoz, xayot sifati, allergik rinit

## «СРАВНИТЕЛЬНАЯ КЛАССИФИКАЦИЯ МЕТОДОВ ТЕСТИРОВАНИЯ IN VIVO И IN VITRO ПЫЛЕВЫХ АЛЛЕРГЕНОВ У БОЛЬНЫХ ПОЛЛИНОЗАМИ»

### **Аннотация:**

Болезнь поллиноз считается одной из актуальнейших проблем современной медицины, так как это заболевание сопровождается развитием сезонного аллергического ринита, конъюнктивита, иногда бронхиальной астмы и другими симптомами. В последние 15-20 лет число аллергических заболеваний на земле увеличивается. Поллинозы занимают ведущее место среди аллергических заболеваний в Узбекистане, что в 200 раз больше, чем в 30 раз больше, чем опухолевых заболеваний, в 200 раз больше, чем ревматизма. Было взято 60 больных поллинозом, обследовано методами in vivo и in vitro и проведено сравнение результатов.

**Ключевые слова:** АСИД, поллиноз, качество жизни, аллергический ринит.

### **INTRODUCTION**

One of the biggest issues in modern medicine is the pollinosis sickness. Due to the onset of seasonal allergic rhinitis, conjunctivitis, and occasionally bronchial asthma as well as other symptoms, this condition. The prevalence of allergy illnesses worldwide has increased during the previous 15 to 20 years. Pollinosis accounts for the largest proportion of allergy disorders in Uzbekistan, 30 times more than rheumatism, 200 times more than tumor disease. Only around 50 of the several thousand plant species found worldwide are considered allergies. There are more than 100 species of pollinose-causing powders. Unfortunately, most often the disease is caused by symptoms 1 at a young age (from 8 to 20 years old). There are plants that produce hundreds of thousands of pollen. However, many studies have found that about 50 of them can cause allergic reactions.

### **RESEARCH OBJECTIVE**

Selection of the most crucial prognostic indicators and evaluation of the outcomes of in vivo and in vitro tests in patients with various nosological forms of allergic pollinosis to optimize diagnostics and cut expenses.

### **MATERIAL AND METHODS**

60 patients with pollinosis, ranging in age from 15 to 40, were studied. All patients were examined in two groups based on the tasks given. In vitro tests on Group 1 patients were performed throughout the illness hurug. Group 2 conducted in-person tests on patients during a quiet and relatively uncomplicated stage of their disease, and the outcomes were scheduledly analyzed.

**Table 12 Group 1 examination results**

Age and gender of the patient	General IG E		Special Ig E			
	100-300 N-20	300< n-40	1,1-5,0 medial (n-4)	5,1-25,0 High (n-5)	25,1-75,0 Too high (n-8)	75,0< maximum high (n-43)
15-20 age	10 (50%)	25(63%)	1 (25%)	2 (40%)	-	12 (28%)
21-30 age	5 (25%)	10(25%)	2 (50%)	3 (60%)	5 (63%)	14 (32%)
31-40 age	5(25%)	5(12%)	1 (25%)	-	3 (37%)	17 (40%)
women/ men	8/12 40%/60%	30/10 75%/25%	3/1 75%/25%	2/3 40/60	3/5 37%/63%	17/26 40%/60%

An increase in the overall IG E (100-300) in 15-20 year old patients was observed in 10 patients (50%) and an increase in the average value of the mahsus IG in 300 high increases was observed in 1 patient (25%) and a maximum high of 12 patients (28%), and their pollinosis was observed in vitro. However, in the 21–30 age group, the increase in the average value of the mahsus IG was noticed in 2 people (50%) and the top 3 people (60%) as well as the maximum higher 14kishi (32%), and their primary part came from women. Among the 31-40s, however, the increase in the average value of the mahsus IG when the total Ig e increased by 5 people(25%) and 5kish (12%) was observed in 1 person(25%), Very High 3 people(37%), maximum high 17 people (40%), and their main share came to men.

**Table 13 Group 2 examination results**

Age and gender of the patient	General IG E		Special IgE/ Scarifying skin fracture			
	100-300 N-20	300< n-40	medial (n-4)	Hight (n-5)	Too hight (n-8)	maximum hight (n-43)
15-20 age	10 (50%)	25(63%)	1 (25%) /1	2 (40%)/2	-	12(28%)/6
21-30 age	5 (25%)	10(25%)	2 (50%) /1	3 (60%)/2	5(63%)/ 2	14(32%)/4
31-40 age	5(25%)	5(12%)	1 (25%)/-	-	3 (37%)/1	17 (40%)/12
women / men	8/12 40%/60%	30/10 75%/25%	3/1 75%/25%	2/3 40/60	3/5 37%/63%	17/26 40%/60%

Based on Table 12, it was found that not all results were proportional to each other when patients had a Scaricated skin fracture.

**CONSULICION**

The outcomes of in vivo and in vitro tests aren't always in agreement with one another. They are inconsistent for a variety of reasons. One of them might be brought on by an immunological reaction (up to 10%) to minor allergens found in the intricate makeup of local extracts. Low levels of free specific responding IgE and sensitivity to minor allergens can increase the incidence of false negative results.

Mismatch results can be attributed to the more complex mechanisms by which skin samples and contents form a specific IgE skin reaction. In the blood, IgE is present in low concentrations and is quickly eliminated, and their elevated level is usually observed during current contact with the allergen. In tissues (in particular, the skin), on the contrary, the IgE associated with mast cells is stored throughout the life of cells - from several days to several months. This factor can also be associated with certain cases of inconsistencies in the results of serological tests and skin tests when checking reactivity to the same allergens.

Clinical reactions may be accompanied by a significant local production of a particular IgE in the patient, but a minor change in their composition in peripheral blood may occur. Anti-IgE antibodies of the IgG class can also partially block the particular IgE, resulting in immunological complexes.

The cause of false positives in in vitro tests may be interactions between allergens in different groups (especially frequent respiration and food). And also the possibility of creating an elevated total IgE can be a low affinity binding of the total IgE part, which has homologous epitopes similar to the IgE epitopes characteristic of a given allergen.

A rise in false positive skin test findings in the clinical diagnosis of sensitivity to certain food allergens (reactions to wheat, fish, and soy) can also be brought on by a number of interactions between allergens.

When doing skin tests, for instance, factors like the patient's age, general health, the existence of coexisting disorders, the use of antihistamines, the specific skin reactivity of the patient, and changes in immunoreactivity during the acute and activation period all play significant roles. All of these ongoing events may cause discrepancies in laboratory test findings.

However, we must always remember that the detection of Allergen-Specific IgE (to any allergen or antigen) only detects sensitization and does not yet prove that this specific allergen is the cause of an allergic disease.

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