

пе 6-12 лет уровень sIgE к Der p1 у девочек выше, чем у мальчиков ($p=0,045$).

Установлена прямая корреляционная связь между уровнем sIgE к Der p1 и Der p2 у всех детей ($r=0,56$, $p<0,00001$): у мальчиков ($r=0,52$, $p=0,001$), у девочек ($r=0,63$, $p=0,002$); у детей 6-12 лет ($r=0,56$, $p=0,001$): у мальчиков ($r=0,61$,

$p=0,003$); старше 12 лет ($r=0,69$, $p<0,0001$): у мальчиков ($r=0,68$, $p=0,007$), у девочек ($r=0,8$, $p=0,001$).

Установление уровня sIgE к аллергенным компонентам КДП Der p1 и Der p2 – метод точной молекулярной диагностики аллергии к КДП, позволяющий улучшить управление АЗ.

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IGE ANTIBODIES TO MAJOR COMPONENTS OF HOUSE DUST MITE ALLERGEN DER P1 AND DER P2 IN CHILDREN WITH ALLERGIES

R. N. Khokha¹, L. B. Zavodnik², A. M. Khokha³, N. S. Paramonova¹, V. V. Ravskaya⁴

¹Grodno State Medical University, Grodno, Belarus

²Yanka Kupala State University of Grodno, Grodno, Belarus

³Grodno State Agrarian University, Grodno, Belarus

⁴Grodno Regional Children's Clinical Hospital, Grodno, Belarus

Background. House dust mite allergy is widespread throughout the world. Analysis of the immune response to *D. pteronyssinus* contributes to understanding the patterns of IgE-mediated response in patients with house dust mite allergy living in different geographic regions.

Objective. To establish serum sIgE levels to the major components of the house dust mite allergen Der p1 and Der p2 in children with allergies.

Material and methods. We examined 61 children aged 4 to 17 years with symptoms of allergy associated with house dust mite in the period from September 2020 to July 2021. The level of sIgE to rDer p1 and rDer p2 was determined by the ImmunoCAP method.

Results. In the study group boys dominated ($\chi^2=11.84$, $p=0.0006$). In the age structure school-age children dominated ($\chi^2=19.74$, $p<0.00001$): up to 6 years old – 5 children (8.2%, CI: 1.31–15.09), 7-12 and over 12 years old – 28 children (45.9%, CI: 33.39–58.41) in each age group. The majority of children had a positive family history of allergies ($\chi^2=20.49$, $p<0.0001$).

The average level of eosinophils in the peripheral blood was 6.8 [2–9.5] %, in the nasal secretions – 24.5 [19.0–32.0]%. The average level of total IgE in the blood serum was 314.5 [132.0–691.0] IU/ml. An increased level of sIgE antibodies to Der p1 and/or Der p2 was found in 83.6% of children, to Der p1 in 75.4% of children, and to Der p2 in 70.5% of children. sIgE antibodies simultaneously to two molecular components of the dust mite (Der p1 + Der p2) were detected in 62.3% of children. The sIgE level to Der p1 was 12.5 [0.56–31.0] kUA/l, to Der p2 – 14.0 [0.04–43.3] kUA/l. The severity of the sIgE immune response to Der p2 in all children in general and in boys in particular, regardless of age, was slightly higher, than to Der p1 ($p>0.05$). In children aged 6-12 years, the level of sIgE to Der p1 was higher in girls than in boys ($p=0.045$). A direct correlation was established between the level of sIgE to Der p1 and Der p2 in all children ($r=0.56$, $p<0.00001$): boys ($r=0.52$, $p=0.001$), girls ($r=0.63$, $p=0.002$); in children aged 6-12 years old ($r=0.56$, $p=0.001$): boys ($r=0.61$, $p=0.003$); children over 12 years old ($r=0.69$, $p<0.0001$): boys ($r=0.68$, $p=0.007$), girls ($r=0.8$, $p=0.001$). The level of sIgE to Der p1 in the group of children with the results of the skin prick tests «+++» and «++++» was higher than in the group of children with the results of the prick tests «+» ($p<0.05$). The level of sIgE to Der p2 in the group of children with the results of the skin prick tests «+++» was higher than in the group of children with the results of the prick tests «+» ($p<0.05$). In children (9.8%) with «-» skin prick test results (but with an increased level of sIgE to the extract of the house dust mite), the level of sIgE to Der p1 and Der p2 did not differ from the level of sIgE to Der p1 and Der p2 in the group of children with the results of skin prick tests «+++», «++++» ($p>0.05$), but exceeded that in children with the results of skin prick tests «+» ($p<0.05$).

Conclusion. The determination of sIgE levels to the allergenic components of the house dust mite Der p1 and Der p2 is a method for the accurate molecular diagnosis of the house dust mite allergy, allowing for better management of allergic diseases in children.

Keywords: children, allergy, house dust mite, skin prick test, sIgE, Der p1, Der p2

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Об авторах / About the authors

*Хоха Раиса Николаевна / Khokha Raisa, e-mail: raisa_khokha@mail.ru, ORCID 0000-0002-1002-1783
Заводник Лев Борисович / Zavodnik Lev, e-mail: LeuZavodnik@yandex.ru, ORCID 0000-0001-8108-9454
Хоха Александр Михайлович / Khokha Alexander, e-mail: alexander_khokha@mail.ru
Парамонова Нэлла Сергеевна / Paramonova Nella, e-mail: pulmon@bk.ru, ORCID 0000-0003-4823-7819
Равская Виктория Викторовна / Ravskaya Victoria, e-mail: Rafaelkaby@gmail.com
* – автор, ответственный за переписку / corresponding author

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