

one validated questionnaire for Portuguese children – “Control of Allergic Rhinitis and Asthma Test for Children” (CARATKids). It consists of 8 questions for the child and 5 for their parents, with a maximum score of 13. The following cut-offs were established:  $\leq 3$ : controlled disease;  $\geq 6$ : uncontrolled disease.

**Objective:** Evaluate clinical control of ARA in a group of children attending Paediatric Allergology consults using CARATKids and study the correlation between clinical score and peak expiratory flow (PEF), allergies in skin prick tests (SPT) and medication adherence.

**Methods:** Observational, descriptive and transversal study, using CARATKids in children diagnosed with asthma and/or allergic rhinitis, data from SPT, PEF and medication adherence. Statistical analysis with SPSS 23.

**Results:** We studied 31 children, mean age of 9.3 years (min. 6, max. 12). 93% had a correct inhalator technique and 38.7% an adequate PEF. 14.8% did not follow prescribed medication. The most common sensitisations in SPT were to mites. Regarding clinical scores, 38.7% had controlled disease and 22.6% uncontrolled disease, with a mean score of 3.97. The parents' score correlated better to the final score than the children's ( $p=0,005$  vs  $p=0,024$ ). Lower respiratory symptoms were statistically correlated to clinical score ( $p=0,016$ ). There was no correlation between PEF or medication adherence and clinical score. Positive SPT to Gramineae and Parietaria were associated with worse clinical scores ( $p=0,048$  e  $p=0,05$  respectively).

**Conclusion:** There is a tendency to undermine asthma's and rhinitis' symptoms, which may explain why only one third of the patients have controlled disease. Objective tools for clinical evaluation should be used frequently, such as CARATKids, to improve therapeutic adjustments and increase clinical control.

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#### Allergy & Immunology

##### Child with Insect Sting Induced Anaphylaxis

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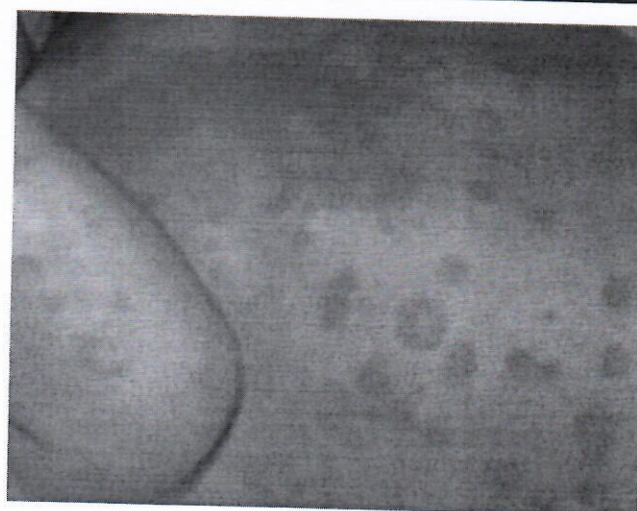
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**Background:** Anaphylaxis is an acute-onset and potentially life-threatening allergic reaction that can be caused by numerous allergic triggers. Children with asthma are at higher risk to develop anaphylaxis caused from medicines, foods, insect stings and bites.

**Objective:** To present a case of insect sting induced anaphylaxis in 6 years old boy with asthma history.

**Methods:** Six years old boy with asthma history admitted to the hospital due to severe bronchial obstruction. At admission pale, subfebrile (37,4C), with tachypnea and wheezing, using abdominal muscles, intercostal and jugular retraction. Barrel shaped chest and increased anteroposterior diameter. Auscultation-vesicular breathing with prolonged expiration and wheezing. O<sub>2</sub> sat=85%, WBC=20x10<sup>9</sup>/l, CRP=20mg/ml. Child was put on oxygen mask, inhalation with salbutamol, parenteral corticotherapy and antibiotic. Continued regular inhalation maintenance therapy. On the fifth day, 15 minutes after parenteral application of Ceftriaxone child once felt the stinging pain in his right foot after it occurred aphonia, severe bronchial obstruction, swelling and redness of the face, lips, tongue, eyelids, ears and appearance of hives on the trunk and legs. Blood pressure = 90/50 mmHg, heart rate = 100/min, respiration rate = 40/min. Treated with oxygen mask, Amp. Adrenalin(1:10000) subcutaneous, antihistamines and corticosteroids intravenous, inhalation therapy with Adrenalin(1:10000), parenteral rehydration.



**Results:** After few hours with significantly reduction of redness and swelling on the face, lips, ears and eyelids, without hives on the trunk and legs and with easy bronchial obstruction treated inhalatory with salbutamol. Near the dorsum of the right foot was noticed insect sting with size of 2 mm. After two days child was discharged in stable condition without respiratory or other allergy symptoms.

**Conclusion:** Children with allergic background are at higher risk of developing anaphylaxis from various allergens, including insect stings. Those who have experienced anaphylaxis need to be provided and trained how to use auto-injectable epinephrine.

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#### Allergy & Immunology

##### Epidemiological Characteristics of Allergic Rhinitis in Children in Ukraine

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**Background.** The results of recent studies have shown an increase in the prevalence of allergic rhinitis (AR) worldwide. Epidemiological information on AR in childhood proposes new hypotheses for further aetiological research into the genetic, lifestyle, environmental, clinical and medical-care factors for this disease.

**Objective.** To determine the prevalence of rhinitis in children and examine the age-old features of AR in Ukraine on the example of Kyiv region.

**Methods.** Written questionnaires (methodology by ISAAC) were self-completed at school by 13-17-year olds and completed at home by parents of children of younger age groups. 7106 children: group I – 1787 (6 month-5 years), group II – 2080 (6-7 years), group III – 1909 (13-14 years), group IV – 1330 (15-17 years). The gender ratio of the sample is about 1:1.

**Results.** The determination of the rhinitis symptoms prevalence was performed by assessment of the answers to question “symptoms of rhinitis in the past 12 months”, selected as the most sensitive criterion. The prevalence of rhinitis symptoms was 24,7% (759/7106), without significant gender difference ( $\chi^2=0,6509$ ;  $p=0,419$ ). In groups: I – 20,0% [95% CI: 18,2-22,0], II – 23,8% [95% CI: 21,9-25,6], III – 26,9% [95% CI: 24,9-28,9], IV – 29,6% [95% CI: 27,2-32,2]. The increase of rhinitis prevalence with age is observed ( $\chi^2=44,039$ ;  $p=0$ ). The prevalence of symptoms of rhinoconjunctivitis in groups: I – 10,6% [95% CI: 9,2-12,2], II – 11,3% [95% CI: 10,0-12,7], III – 14,8% [95% CI: 13,3-16,5], IV – 10,8% [95% CI: 9,2-12,6]. AR was diagnosed in 14,2% [95% CI: 12,6-15,9] in