Omalizumab in patient with severe uncontrolled asthma with urticaria, angioedema and food allergy

Julia Levina, Leila Namazova-Baranova, Anna Alekseeva, Elena Vishneva, Kamilla Efendieva, Svetlana Makarova
Scientific Center of Children’s Health, Moscow, Russia

Background: Omalizumab is recommended to children older than 6 years with moderate to severe uncontrolled allergic asthma, who are unresponsive to the treatment with high doses of inhaled corticosteroids and long acting β2-agonists combination. Omalizumab is also approved for treatment of patients 12 years and older with chronic urticaria.

Report: An 8 year old boy referred to the allergy department with the symptoms of severe uncontrolled asthma, allergic rhinitis during the pollen season. He was allergic to nuts, citrus, fish, potatoes and red caviar. At the age of 1.5 he had the first case of angioedema after eating the almond. Four months later he had the second episode of angioedema caused by nougat. From the age of 2 every viral infection came with wheezing. He was diagnosed with bronchial asthma and was treated with budesonide and salbutamol via nebulizer. After age 4 his asthma symptoms were every 2-4 weeks during viral infections. His treatment was fluticasone 125 µg twice daily, the frequency of symptoms didn’t change. Then he was treated with combination of salmeterol/fluticasone 25/125 µg b.i.d. with no significant effect, from the age of 7 - 25/250 µg b.i.d. At 8 he acquired chronic idiopathic urticaria with the exacerbations every two month, the treatment was levocetirizine 5 mg daily. Angioedema and urticaria were caused by bread that happened to contain nuts in Sep 2015. The last episode of urticaria was in October. He referred to the allergy department in Dec 2015. He had weight 30 kg, IgE 1100 IU/ml, FEV1 78%, specific IgE (kUA/l) to the apple 1,26, dog 2,46 (class II), egg white 6.88 (class III), D. Pteronyssinus 28,5, D. Farinae 31,2 (class IV), filbert 58,7 (class V), birch >100, alder >100 (class VI). For the last 6 months from Dec 2015 he was on treatment with omalizumab 450 mg SC every month. Since the beginning of this treatment there were no exacerbations of asthma, no episodes of urticaria and angioedema, there were no adverse reaction during the treatment. He had mild symptoms of allergic rhinitis during the pollen season in May. His basic therapy now is salmeterol/fluticasone 25/125 µg b.i.d., levocetirizine episodically.

Conclusion: The treatment with omalizumab was effective and safe for an 8 year old boy with severe uncontrolled asthma, urticaria, angioedema, food allergy and season allergic rhinitis. The volume of additional therapy of asthma and urticaria was reduced during the treatment with omalizumab.