The long-term monitoring and analysis of outcomes of different approaches to the management of chronic spontaneous in adolescents

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Background. Second-generation of H1-antihistamines (H1-AH) is the main therapy for the chronic spontaneous urticaria (CSU). Omalisumab (Omab) is the only biological, approved for the severe H1-AH resistant CSU in adolescents over 12 years.

Objective. To evaluate different approaches to severe CSU therapy in adolescents and assess achieving of disease control in 3 y period.

Methods. The long-term prospective observation study of 34 children with severe CSU (55% boys, average age 13 yo (min 3; max 17,0), the duration of disease — 33 mo (min 3; max 144); UAS7 — 18 points (min 16; max 24,0) was conducted. All patients received H1-AH for minimum 3 mo.

Patients were randomized in 2 groups. 17 patients of the 1st group were added with Omab to therapy: 55,6% girls, average age — 15 y (min 12,0; max 17,0); disease duration was 45,2 mo (min 3,0; max 144,0), the average total IgE level — 348,2 IU/mL (min 0,8; max 2041,0); the average UAS7 at debut — 17,2 points (min16; max 24). The course of Omab therapy was 6 mo, 300 mg/mo subcutaneously.

17 patients of the 2 nd group maintained alone H1-AH therapy: 64,7% boys, average age — 10,8 y (min 3,0; max 15,0); disease duration was 20,5 (min 3; max 72) mo, the average total IgE level — 182 IU/mL (min 20; max 1050); UAS7 at debut — 18 (min 16; max 28) points.

The efficacy of therapy assessed by urticaria activity score for the 7 days (UAS7).

Results. In the 1st group of patients in 6 mo of Omab therapy UAS7 was 1,6 (min 0; max 20) points, $p < 0,05$. After 3 y of the course Omab therapy UAS7 was 4,5 points, $p < 0,05$.

In the 2 nd group of patients, who received alone H1-AH, in 6 mo UAS7 remained at the same level — 18 points ($p < 0,05$). The average UAS7 in 3 y was 12 (min 0; max 26) points ($p < 0,05$).

Thus, in patients receiving Omab UAS7 significantly decreased after 6 mo.

The UAS7 level in the Omab group indicates a greater proportion of children who have achieved disease control. The proportion of children, who have achieved remission during 3 y (UAS7 = 0): in Omab group 52,9%, in H1-AH — 29,4% ($p = 0,163$).

Conclusion. Our results indicate the efficacy of Omab in adolescents with CSU: rapid relief of urticaria symptoms and a greater proportion of adolescents who have achieved disease control, compared with therapy alone H1-AH.