

Effect of SIT on quality of life

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● ALLERGIC rhinitis (AR) is one of the most prevalent of the chronic respiratory diseases and affects approximately 20–25% of the population (1). AR produces a significant economic impact (2) and may also have an effect on the quality of life (QoL) of patients (3). There are no data on the cost of medication (CoM) in 1 year and the QoL measurement of children with AR treated with both allergen immunotherapy (AIT) and pharmacologic agents. The aim of this study was to investigate the CoM and QoL of patients with AR who were treated by

pharmacologic agents and AIT.

Sixty-seven patients with AR selected randomly were included in the

Allergen-specific immunotherapy in allergic rhinitis may improve QoL and reduce cost of medicine.

study. In the group on AIT, there were 21 boys and 19 girls, ranging in age from 8 to 16 years (13.4 ± 1.9 years). The group treated with pharmacologic agents consisted of 14 boys and 12 girls, ranging in age from 8 to 15 years (12.9 ± 1.8 years). All patients had a positive prick test (Greer Laboratories, Inc., USA) and the presence of specific IgE at a RAST class of 3–4 (Pharmacia Diagnostics AB, Sweden). The patients on AIT had been receiving it for at least 2 years (3.2 ± 1 years).

We translated the rhinitis QoL questionnaire developed by Juniper et al. (3) into Turkish. The patients and/or their parents completed 19 items. The participants rated symptoms on a scale of 0–6 (0 represented no trouble and 6 meant

extremely troubled). The QoL index was calculated as a mean of the items within each domain.

Statistical analysis of data was performed by Student's *t*-test and the Spearman rank test.

The mean QoL of the AIT group (1.3 ± 0.5) was significantly lower than that of the other group (2.2 ± 0.7) ($P < 0.01$). There was significant correlation between duration of the AIT treatment and improvement in QoL ($R = -0.4719$, $P = 0.002$). The decrease in QoL index indicated lower severity of symptoms and substantial improvement. The mean CoM in 1 year of the AIT group and the other group were 74.17 ± 50.76 and 153.47 ± 68.34 US dollars, respectively. This difference was significant ($P < 0.001$). But when the cost of AIT was added, CoM rose to a mean 183.67 US dollars. Patients on AIT had fewer symptomatic days than the patients treated with pharmacologic agents.

The treatment of AR is based on three therapeutic techniques: avoidance of allergen, use of appropriate pharmaceutical agents, and AIT. AIT is usually considered when a reasonable trial of pharmacotherapy and environmental control has proved insufficient to control symptoms. The efficacy of AIT for AR has been clearly proven by studies (4).

The results of our study demonstrated that allergen shots resulted in the reduction of the cost of pharmacologic treatment, and the reduction was correlated with the duration of AIT. These findings were in agreement with those of previously published studies (5, 6). But these studies did not discuss the cost of AIT.

To our knowledge, there are no published reports on measuring the efficacy of AIT on QoL in children with AR. There is only one study in adult AR patients (5). The results of our study are consistent with their results.

In conclusion, this study suggests that AIT may have a positive effect on the improvement of QoL and on reducing the amount of the CoM of AR patients.

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