Effects of Montelukast on Quality of Life in Patients with Persistent Allergic Rhinitis

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ABSTRACT

Objective: To determine the effects of montelukast monotherapy on health-related quality of life (HRQL) in patients with persistent allergic rhinitis. Study Design: The study was a placebo-controlled, randomized, double-blind clinical trial.

Subjects and Methods: There were 40 patients in the study group and 34 patients in the control group. A diagnosis of perennial AR was obtained from 18 females with a mean age of 35.1 ± 6.8 years. The difference in the early phase response occurs mainly due to neutrophil, eosinophil, and mast cell degranulation. In the late phase response, increased neuropeptide release and the release of mediators from activated T lymphocytes are responsible for nasal symptoms. Furthermore, it is reported that patients with persistent AR show symptoms of nasal obstruction, sneezing and nasal itching throughout the year. Treatment difference was defined change from baseline to end of first month.

RESULTS

The study group (total = 44) comprised 31 female with a mean age of 34.2 ± 11.6 years, 15 male with mean age of 33.6 ± 7.8 years. The control group (total = 44) comprised 18 female with a mean age of 35.1 ± 6.8 years. The difference between placebo vs study group in change from baseline to end of the first month (treatment difference) was statistically significant in favor of study group compared with placebo for sleep, activities and practical problems domains (respectively, p < 0.001, p < 0.001 and p = 0.003) (Table 1 and Figure 1).

CONCLUSIONS

The purpose of pharmacotherapy in allergic rhinitis is to manage the allergic symptoms and their effects. Montelukast is a newly drug targeting to prevent symptoms caused by leukotrienes in AR patients, and it has been shown that montelukast improves the quality of life of patients with persistent AR and increases the quality of life compared to placebo.

REFERENCES


METHODS AND MATERIALS

The study involved 70 patients who were diagnosed with persistent AR at the end organ level. 31 female, 39 male, and double-blinded. The patients were evaluated in two control visits after the diagnosis. The montelukast group was administered montelukast, while the placebo control group was administered placebo. To evaluate HRQL in both groups, Rhinoconjunctivitis quality of life questionnaire (RQLQ) was used. The RQLQ is a questionnaire with 28-item questions related to the symptoms in seven domains (sleep, eye problems, nasal problems and activities domains, respectively, p < 0.001, p < 0.001 and p < 0.001) (Table 1 and Figure 1).