ABSTRACT

**Objective**: Our objective was to prove the effectivity of INC addition on loratadin treatment in lowering TNS scores and mucociliary transport time compared to loratadine single treatment on allergic rhinitis (AR) patients.

**Method**: Forty patients with moderate-to-severe intermittent AR and mild persistent AR participated in this randomized pre-post test with control group design research. We performed consecutive collection of AR patients at Allergy–Immunology Division of ORL-HNS Outpatient Department of Dr. Soetomo Hospital, Surabaya. Samples were performed pre-treatment TNS score examination and mucociliary transport time and then divided into 2 groups, group A with loratadine treatment and group B with INC addition to loratadine standard treatment. All samples went through post treatment TNS score examination and mucociliary transport time measurement after 14 days.

**Result**: Comparison of TNS scores between group A and B was analyzed statistically and the result were significantly different (p=0.001). After treatment, the lowering of TNS score between group A and B was significantly different (p=0.001). Mucociliary transport time analysis in both groups showed significantly different (p=0.001 and 0.000) and the decrease of mucociliary transport time in both groups also significantly different (p=0,000).

**Conclusion**: Intranasal corticosteroid addition to loratadine is more effective treatment compared to loratadine single treatment in lowering total nasal symptom score and mucociliary transport time in allergic rhinitis patients.

**Key words**: Allergic rhinitis, intranasal corticosteroid, loratadine, total nasal symptom score, mucociliary transport time.