

ABSTRACT

Introduction: Rhinosinusitis and allergic rhinitis is common health problems. Rhinosinusitis affects 5—15% of people in Europe while allergic rhinitis affects 10—30% of adults and up to 40% of children in USA (Fokkens *et al.*, 2012; Meltzer, 2016). Anatomically, allergic rhinitis patients tend to have edema on their nasal mucosa, disrupted cilia, and excessive secrete production that clogged the paranasal sinuses. This condition leads to inflammation and infection of the paranasal sinuses (Feng *et al.*, 2012). Until now some literature consider allergic rhinitis as a predisposing factor of rhinosinusitis, however there are some other that state otherwise. This study aims to analyze the correlation between allergic rhinitis and rhinosinusitis.

Methods: This study was an observational study with cross-sectional design. The samples were obtained by consecutive sampling. Adult patients above 19 years old with rhinorrhea who came to URJ THT-KL RSUD Dr. Soetomo Surabaya in January–February 2017 were examined by the doctors on duty and interviewed. Medical data obtained were recorded and analyzed using chi square test.

Results: Information was obtained from 98 patients, 17 patients (17.35%) in which had both rhinosinusitis and allergic rhinitis, 48 patients (48.98%) in which only had rhinosinusitis, and 13 (13.26%) patients in which only had allergic rhinitis. Patients who had neither rhinosinusitis nor allergic rhinitis reported to be 20 patients (20.41%). Allergic rhinitis had no significant correlation with rhinosinusitis ($p=0.266$).

Conclusion: There is no significant correlation between allergic rhinitis and rhinosinusitis. Rhinosinusitis is a multifactorial disease.

Keyword: *rhinosinusitis, allergic rhinitis, cross-sectional, correlation*