

ABSTRACT

TITLE

A cross sectional study to assess olfactory function and quality of life changes in patients with allergic rhinitis before and after medical therapy.

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DEPARTMENT

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BACKGROUND

Allergic rhinitis is a common inflammatory disease prevalent world wide which is known to affect both olfaction and quality of life. Very little information is available regarding the impact of medical therapy on these parameters in patient with allergic rhinitis in the Indian subcontinent.

OBJECTIVES

1)To assess the prevalence of olfactory dysfunction in patients diagnosed with allergic rhinitis

2) To evaluate associated quality- of –life changes in patients diagnosed with allergic rhinitis 3) To assess the reversal of olfactory dysfunction and any change in quality –of- life in affected patients following medical therapy

METHODS

A cross-sectional hospital based study was conducted prospectively in patients diagnosed with allergic rhinitis All recruited patients underwent butanol threshold testing for assessment of olfactory function and assessment of quality of life using a RQLQ questionnaire. These patients underwent medical therapy with steroidal nasal spray, antihistamines and/ or leukotriene receptor antagonists for about 8-12 weeks

At the end of therapy, the same tests were administered again. As there is no normative data for the Indian population, 40 normal individuals were tested to obtain normative data for olfaction testing.

RESULTS

A total of 150 patients with allergic rhinitis were recruited. Most patients (72%) had intermittent, mild or moderate allergic rhinitis. Smokers were more likely to have moderate to severe allergic rhinitis than non-smokers ($p=0.01$). The prevalence of hyposmia in patients with allergic rhinitis was 28.7%. The degree of hyposmia was mild (52.9%) or moderate (35.3%) in the majority. Following therapy, there was a significant improvement in olfaction scores ($p=0.001$). Quality of life (QOL) was affected in all patients with allergic rhinitis and the mean QOL scores were raised, particularly those affecting nasal, emotional and non-nasal symptoms. These scores also showed a significant improvement following therapy ($p=0.00$)

CONCLUSION

Allergic rhinitis impacts both olfaction and quality of life in Indian patients. The problem is more pronounced in smokers. With adequate medical therapy which includes a steroid nasal spray, antihistamine and leukotriene antagonist, most patients find significant benefit both for olfaction as well as quality of life.