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To Study the Impact of Allergic Rhinitis on Quality of Life in a Tertiary Care Hospital

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ABSTRACT

Introduction: Chronic diseases because of their prolonged and enervating nature can influence the quality of life (QOL) of the individual¹. Allergic rhinitis (AR) is a common long-standing medical condition. If not treated, it can result in considerable health-related and economic consequences. Quality of life, while referring to an individuals' health is known as Health-Related Quality of Life (HRQL). The aim of this study was to evaluate the effect of AR on an individual's quality of life.

Objective: The objective of our study was to study the effect of allergic rhinitis on an individual's quality of life.

Methods: A specific questionnaire called the Rhino conjunctivitis Quality of Life Questionnaire (RQLQ) was used to study HRQL in allergic rhinitis in the ENT OP of Saveetha Medical College and Hospital from January 2020 to March 2020. RQLQ covers 7 domains and has a scale from 0 to 6.

Results: Out of 40 patients, 24 (60%) were male and 16 (40%) were female. Out of 40 patients analysed the most common symptom was rhinorrhea. Out of the total 40 patients, the QOL was mildly affected in 13 (32.5%) and severely affected in 27 (67.5%) patients.

Conclusion: It was observed that allergic rhinitis did have a notable impact on the quality of life.

Key Words: Allergic rhinitis (AR), Quality of Life (QOL), Quality of Life Questionnaire (RQLQ), Rhino conjunctivitis

INTRODUCTION

Allergic rhinitis (AR) is a diagnosis associated with a group of symptoms affecting the nose and is induced after allergen exposure by an immunoglobulin E (IgE)-mediated inflammation of the membranes in the lining of the nose.^{1,2} Sneezing, itchy nose, rhinorrhea and nasal congestion are the general nasal symptoms for AR, it may be classified by the pattern of exposure to a triggering allergen (seasonal, perennial, episodic), recurrence (intermittent or persistent) and gravity of symptoms (mild or severe).³

Many causative agents have been linked to AR including pollens, moulds, dust mites and dander of animals.⁴ Although AR is not a serious condition, it is clinically relevant because it has many underlying complications, is a vital risk factor for asthma and affects the productive capacity at work or school.⁵ Quality Of Life (QOL) signifies the wellbeing and satisfaction of life.⁶ Quality Of Life (QOL) includes psychological, social and physical functioning and incorporating

the positive aspects of well being and also the negative aspects of the disease. This is the definition of Quality Of Life (QOL) given by the World Health Organisation. Health, as defined by the World Health Organisation is a state of complete physical, mental, and social well being and not only the absence of disease and Health-Related Quality Of Life (HRQOL) is a vast concept which is defined as the individual's subjective perception of the effect of their disease and its treatment(s) on their daily life, social development, physical and psychological well being. The study was performed to study the effect of allergic rhinitis on an individual's quality of life.

MATERIALS AND METHODS

This was a prospective study of 40 patients done at the ENT OP of Saveetha Medical College and Hospital. Specific questionnaires are more susceptible and are much more to detect

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clinically salient changes in patients impairments, hence a specific questionnaire called Rhino conjunctivitis Quality of Life Questionnaire (RQLQ) was used to conduct the study. RQLQ covers 7 aspects of health: sleep, non-nasal symptoms, nasal symptoms, ocular symptoms, specific activities, practical problems, specific activities limited by symptoms in the previous week, and emotional function. The patients rate each aspect of health item on a scale of 0 (not troubled) to 6 (extremely troubled). The mean value for each health aspect is calculated and the final HRQL is demonstrated as the average of the 7 dimension scores.

RESULTS

Demographic data:

Out of 40 patients, 24 (60%) were male and 16 (40%) were female. The age group ranged from 12 to 71 years. The mean age calculated in the study group was 32 years.

Clinical findings

Runny nose (Rhinorrhea) (52%) was found to be the most common symptom among the studied participants. Other main symptoms included sneezing (17%), stuffy blocked nose (14%), itchy eyes(7%). Tiredness/fatigue, irritability was also observed in some participants (Figure 1).

In our study which used RQLQ, the patients quality of life was divided into seven categories - not troubled (0), hardly troubled at all (1), somewhat troubled (2), moderately troubled (3), quite a bit troubled (4), very troubled (5), extremely troubled (6). Each category had a specific score from 0-6 respectively. In our study setting, we divided the patients quality of life into two different categories, a mildly-changed category (having scores 0,1,2,3) and a severely-changed category (having scores 4,5,6).

Among the total 40 patients, the quality of life was mildly affected in 13 (32.5%) and severely affected in 27 (67.5%) patients (Figure 2). No significant relation was observed between gender and quality of life. It was also found that lower the quality of life, more is the severity of the disease.

DISCUSSION

Allergic rhinitis is a multifactorial disease with genetics and also environmental factors. It is one of the most recurrent and common allergic problem affecting the population in general, with its prevalence increasing globally.

The population in our study (60% male and 40% female) was similar to the previous study conducted by Hubert Chen et al.⁵ in which 63% of the participants were male and 37% were female. In a study by Shariat et al⁴, 39% of the par-

ticipants were male and 61% were female, which is different from the present study. Rhinorrhea was the most common symptom found in our study setting. In a study conducted by Mohammad et al.² in Tehran, rhinorrhea was found to be the most common symptom of allergic rhinitis. Shariat et al.³ reported that nasal congestion was the most common symptom of allergic rhinitis and had found a significant relation between nasal congestion and quality of life impairment.

CONCLUSION

Allergic rhinitis can have a notable impact on the quality of life affecting daily activities, quality of sleep, mood. Symptoms of allergic rhinitis which may interfere with the quality of life may predispose the affected individual to various comorbid conditions which may further influence the quality of life. To overcome these, the first step to be taken is making an early diagnosis. After making the diagnosis, physicians should consider treatment interventions that provide efficacious ways to minimise the impact of this disease, also keeping in mind the effect of allergic rhinitis on the quality of life. Since AR is a part of a systemic disease process, its management requires a coordinated approach rather than a fragmented, organ-based approach¹⁰. Hence early diagnosis and better treatment can help to ease the patients affected by allergic rhinitis.

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■ Rhinorrhea ■ Sneezing ■ Stuffy blocked nose ■ Itchy eyes

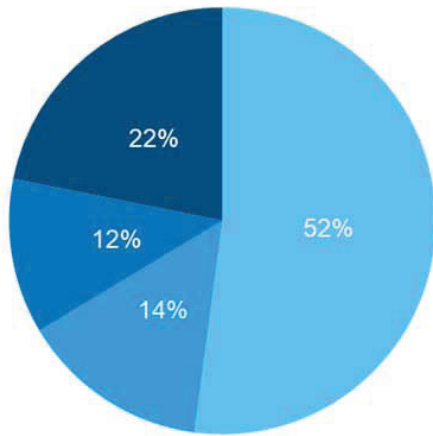


Figure 1: The symptoms observed in allergic rhinitis patients.

■ mildly affected ■ severely affected

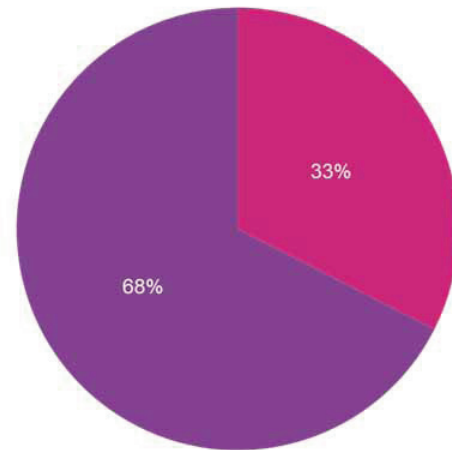


Figure 2: Quality of life in allergic rhinitis patients.