

ALLERGIC RHINITIS & ITS EFFECT ON THE QUALITY OF LIFE

*Dr. J P Chaudhary, ²Dr. Yogesh Jakhar and ³Dr. Anupam Pathak

¹PG Scholar, PG Department of Swasthavritta & Yoga, Sri ganganagar College of Ayurvedic Science & Hospital, Sriganganagar Rajasthan.

²Assistant Professor, PG Deptt. of Swasthvritta & Yoga, Sri ganganagar College of Ayurvedic Science & Hospital, Sriganganagar Rajasthan.

³Professor & H.O.D. PG Deptt. of Swasthvritta & Yoga, Sri ganganagar College of Ayurvedic Science & Hospital, Sriganganagar Rajasthan.

*Corresponding Author: Dr. J P Chaudhary

PG Scholar, PG Department of Swasthavritta & Yoga, Sri ganganagar College of Ayurvedic Science & Hospital, Sriganganagar Rajasthan.

Article Received on 16/11/2019

Article Revised on 06/12/2019

Article Accepted on 27/12/2019

ABSTRACT

An allergen is an otherwise harmless substance that causes an allergic reaction. Allergic rhinitis, or hay fever, is an allergic response to specific allergens. Pollen is the most common allergen in seasonal allergic rhinitis. These are allergy symptoms that occur with the change of seasons. Nearly 8 percent of adults are experiencing (are suffering from) allergic rhinitis of some kind. According to the research, between 10 to 30 percent of the worldwide population may also have allergic rhinitis.

KEYWORDS: Allergic rhinitis, allergens.

INTRODUCTION

Allergic rhinitis (AR) is often observed in children, adolescents, and young adults. Typically, allergic rhinitis surfaces (affect) at a younger age and is more prevalent among boys. In a child, the immune system developd from 1 to 4 years of life; and those with an atopic predisposition start expressing allergic disease with a clear response to allergen exposure, resulting in symptoms. Seasonal allergic rhinitis is more common in children, whereas perennial allergic rhinitis is commonly seen in adults (especially women).

- an itchy nose
- coughing
- a sore or scratchy throat
- itchy eyes
- watery eyes
- dark circles under the eyes
- frequent headaches
- eczema-type symptoms, such as having extremely dry, itchy skin that can blister and weep
- hives
- excessive fatigue



Symptoms of allergic rhinitis

Common symptoms of allergic rhinitis include

- sneezing
- a running nose
- a stuffy nose

Effect of Allergic Rhinitis on Children

In children, allergic rhinitis affects quality of sleep and often results in daytime fatigue and sleepiness. The symptoms of allergic rhinitis can cause distraction during school hours. Often, children with allergic rhinitis have reduced social interaction that inevitably affects school performance and learning process.

Academic performance is also affected by the presence of sleep abnormalities with nocturnal snoring and hypoxia.

Chronic nasal blockage and nasal congestion due to allergic rhinitis can pause learning difficulties in school children by altering night time sleep because of frequent awakening throughout the night and daytime sleepiness. Furthermore, excessive production of immune cells (interferon – γ , tumour necrosis factor- α , interleukin

[1L]-1 β , 1L-4 AND 1L-10) can contribute to sleep disturbance in individuals with allergic rhinitis. The outcomes of untreated allergic rhinitis and academic performance issues include sleep disturbances or daytime sleepiness, absenteeism, “presenteeism” (physically present but inattention, lack of concentration, or distraction), irritability and restlessness, mood disorders such as anxiety and depression, social and family problems, low performance in certain subjects, reading and writing problems, and hearing defects.

Children with allergic rhinitis are often advised antihistamine treatment, which may, however, be associated with poor academic performance, possibly due to the sedating effect of the drug. Antihistamine treatment can induce drowsiness due to the interaction of these drugs with the H₁ receptors located at the hypothalamic region, which accounts for the 40% of the total H₁ receptors of the human body. This may often result in lower grades in children taking examinations during seasons with peak rhinitis symptoms compared with during seasons when rhinitis incidence is dormant.

The major comorbidities associated with, allergic rhinitis include conjunctivitis, asthma, sinusitis, and eczema. The presence of allergic rhinitis is also observed to be associated with a high incidence of otitis media with effusion. Most of the children with allergic rhinitis may present with symptomatic adenoid hypertrophy and hence should be investigated for its presence. Although the exact mechanism of allergens in adenoid hypertrophy is unknown, it is reported that the immunology of the adenoid tissue is altered in the presence of sensitization to inhalant allergens.

Adequate management of allergic rhinitis in the pediatric population can reduce the effect of the condition on the future health aspects of the children and adolescents, avoid complications, and improve the quality of life and academic performance. Hence, it is necessary to prescribe drugs that would not completely hamper the child's performance.

Effect of Allergic Rhinitis on Adults

Although allergic rhinitis usually surfaces in childhood, adolescence, or early adulthood, it may persist with age. Allergic rhinitis creates a significant burden in the workplace, in terms of work productivity and healthcare costs.

The symptoms of allergic rhinitis can severely affect routine activities at the workplace, quality of life, and psychologic well-being. Moreover, the symptoms of allergic rhinitis result in decreased productivity at the workplace, often termed as “Presenteeism”.

In 2016, a cross-sectional study was conducted to assess the effect of allergic rhinitis on work and academic performance, daily activities, and health related quality of life (HRQOL). Three allergy- specific questionnaires

that assessed these parameters were given to the study participants (N=40). In this study, 20 were employed, 15 were students, and 5 were working and studying. Also regression analysis were used to study the link between several clinical variables and patient- reported outcomes. The results of the study suggested a total loss of 21% productivity in the employed participants, and the impairment of daily activities in the entire study group was 22%. The mean overall score for health related quality of life (HRQOL) was 1.94 ± 1.29 (on a scale of 0 to 6 points).

The regression analysis showed significant relations between loss of work and academic productivity, impairment of daily activities, and the type of and severity of allergic rhinitis. The study concluded that the persistent and more severe form of allergic rhinitis had an effect on the functional characteristics of the study group.

CONCLUSION

Allergic rhinitis can hamper quality of life along with academic and work performance. Hence, one of the major steps in the management of allergic rhinitis is to avoid encountering the allergens and triggers.

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