

## A STUDY OF SEASONAL ALLERGIC RHINITIS IN HAZARA DIVISION

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### ABSTRACT

All the cases diagnosed as allergic rhinitis in the ENT outpatient of DHQ hospital Abbottabad over a period of one year were included in a study of the pattern of seasonal allergic rhinitis in Hazara division of NWFP, Pakistan. Maximum cases out of total 56 over a year were found in March (n=20) & April (n=30). In 90% of these cases history of other associated allergies was also present while the rest of the cases did not show any such association. Out of the total 56 cases, 26 patients were females and the rest were males. Most of the patients were below 40 years of age. Pollens seem to be the major allergens in this area especially those of the poplar and pine trees.

### INTRODUCTION:

The term allergy was introduced by Von Pirquet<sup>1</sup>. Allergic Rhinitis is defined as paroxysmal sneezing, rhinorrhoea and nasal blockage with or without conjunctivitis and no signs of infection<sup>2</sup>.

Our surroundings are full of allergens of different forms and types. Allergic Rhinitis and its non-allergic equivalent vasomotor rhinitis, affect about 10% of the population<sup>3</sup>. They are perhaps increasing because of the industrial development. Recognition of the problem is also increasing<sup>4,5,6</sup>.

Allergic rhinitis may begin at almost any age. However, the greatest incidence has been found in children and young adults. The incidence of allergic rhinitis decreases with advancing age.

Racial, ethnic or sexual variation has been found in its incidence. The role of heredity does not appear to be of any major significance. There are two forms of allergic rhinitis, namely seasonal and perennial. The seasonal varieties are due to airborne allergies e.g. pollens, moulds, trees and grasses<sup>5</sup>. However, some controversy exists regarding the types of allergic rhinitis. It varies from one location to the other. The perennial type has lesser association with environmental allergens.

### MATERIALS AND METHODS

All the cases coming to Out Door Department of ENT in DHQ Hospital with sneezing, watery nasal discharge, nasal blockage and irritation of the eyes for one week were included in the study.

The patients were examined and the following finding were noted:

1. Color of the nasal mucosa
2. Size of the inferior turbinates.
3. Color of secretions from the nasal cavity.
4. Number of sneezing in one bout.
5. Eosinophil count in nasal secretion and in the blood.

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Presence of at least three out of the above five points was taken as diagnostic for seasonal allergic rhinitis. The skin sensitivity test for allergic rhinitis was also done in the cases which were positively diagnosed as allergic rhinitis.

## RESULTS

A total Number of 56 cases were seen in the outpatient Department of DHQ Teaching Hospital, Abbottabad, during the period between 15 Jan, 1989 & 15th Jan 1990. Maximum cases were found in March & April. In 90% of these cases history of other associated allergies was also present while the rest of the cases did not show any such association.

Out of the total 56 cases, 26 patients were females and the rest were males (Table -1). Most of the patients were in age group below 40 years. Only two cases were above forty years of age (Table - 2). Most of the patients belonged to Hazara Division, mainly District Abbottabad.

**Table - 1: DISTRIBUTION BY SEX**

SEX	NO. OF CASES
Male	30
Female	26
Total	56

**Table -2 AGE WISE DISTRIBUTION**

AGE GROUP	NO. OF CASES
0- 10	02
11-20	18
21-30	25
31-40	08
> 40	02
Total	56

Clinically, nasal discharge was the commonest symptom (85 % cases). Nasal blockage and sneezing were the other common symptoms. Some patients presented with irritation of the eyes and throat in addition to nasal discharge and sneezing (Table 3).

**Table – 3: SYMPTOMS**

SYMPTOMS	NO. OF CASES
Nasal Discharge Sneezing	43
Nasal Blockage	10
Irritation of the eyes and throat	03
<b>Total</b>	<b>56</b>

## DISCUSSION

In our study nasal allergy was found to be slightly more common in males than in females. Adolescents and young adults were the common victims. This is in accordance with other studies<sup>1</sup>. Diagnosis was mainly clinical. Associated allergies like conjunctivitis and bronchial asthma were

also found in most of the patients. Abbottabad although not an industrial city, is surrounded by hills covered with thick forests. Pollens seem to be the major allergens in this area especially those of the poplar and pine trees.

**Table - 4 SEASONAL DISTRIBUTION OF CASES**

<b>MONTH</b>	<b>No. of Patients</b>	<b>MONTH</b>	<b>No. of Patients</b>
January	00	July	00
February	02	August	00
March	20	September	00
April	30	October	00
May	04	November	00
June	00	December	00

Seasonal variation revealed a marked association of AR with the pollens in Abbottabad. It is therefore, suggested that necessary measures including destruction of poplar trees, should be taken to reduce the incidence of allergies in this beautiful area. We also suggest further studies in this regard.

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