

**ALLERGIC RHINITIS - ITS INCIDENCE AND
TREATMENT IN MALTA**

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Allergic rhinitis is an antibody mediated inflammatory disease of nasal mucosa. It is classified as seasonal or perennial depending on timing and duration of symptoms. The characteristic symptoms include paroxysms of sneezing, nasal pruritis and congestion, and mucous secretion often resulting in post-nasal drainage (Tarnasky, 1990).

Three principal therapeutic methods are used to alleviate allergic rhinitis: (1) avoidance of exposure to allergens; (2) pharmacologic treatment to minimise or counteract symptoms; and (3) immunologic treatment, which attempts to alter immune response to allergens (Norman, 1985).

Three studies were carried out to form an idea regarding the general situation in Malta.

Study 1

Retrospective review of patients with allergic Rhinitis presenting at the E.N.T. outpatients clinic at St Luke's Hospital in three consecutive years for the months of April and May.

Method

A retrospective study was carried out to determine the trends in the number of patients attending the E.N.T. outpatients clinic due to allergic rhinitis and to study changes in the drug therapy for such patients during these three years. The study was carried out by looking through the files of all the patients with allergic rhinitis who attended the clinic during April and May 1989 - 1991. Information collected included patient characteristics and the treatment they were prescribed.

Results

	1989	1990	1991
Total number of patients attending during April-May 1989-1991	1612	1368	1190
Number of patients attending due to allergic rhinitis	165	148	120
Percentage	10.24%	10.82%	10.08%

The total number of patients attending decreased over the 3 year period, however, the number of patients attending due to allergic rhinitis decreased also keeping the percentage relatively constant at approximately 10%.

With regards to drug therapy, a steroid nasal spray, Beclomethasone dipropionate, was the drug most frequently prescribed, both alone and in combination, in 1989 (52.7%) and in 1990 (54.1%).

In 1991, 68.3% of patients were prescribed Astemizole, a long acting antihistamine.

The amount of systemic steroids and short acting antihistamines prescribed decreased from 1989-1991.

Study 2

Interviews with patients attending E.N.T. outpatients clinic at St Luke's Hospital due to allergic rhinitis.

Method

63 patients (30 males and 33 females) attending E.N.T. outpatients clinic at St Luke's hospital between August and October 1991, due to allergic rhinitis, were interviewed with the aim of identifying the following characteristics: locality of origin; symptoms; amount of disability; seasonal variation of occurrence of symptoms; precipitating factors; family history of allergic rhinitis; previous/present drug therapy; knowledge about condition and treatment; and compliance. An

educational leaflet on the subject was given to each patient together with information and advice on their medication.

Results

71.43% of the patients fell into the 15-24 age group. All of the patients (n=63) recognised more than one symptom related to their condition, the most common symptoms being sneezing (95.24%) and blocked nose (76.2%); 52.4% had an onset of the condition between 10 - 20 years of age. 18 patients had severe and recurrent attacks and 15 claimed that several days of work or school were lost throughout the year due to the severity of their condition.

27 patients suffered from allergic rhinitis perennially and 36 seasonally; the most common precipitating factors being dust (61.9%) and pollen (57.1%). 36 patients had no family history of the condition.

Prior to attending ENT outpatients clinic 85.7% had used antihistamines and 42.9% had used steroid nasal spray to control their symptoms. 4.8% had taken a steroid injection; 9.5% had made use of a decongestant and 9.5% had used eye drops.

33% had found therapy ineffective and 43% had discontinued due to side effects; the majority of patients had attended E.N.T. outpatients clinic for a prescription of alternative treatment.

52.4% were prescribed a long-acting antihistamine; 47.6% a steroid nasal spray; 4.8% - a systemic decongestant and 9.5% - eye drops. 33 patients 'claimed to be compliant' with prescribed treatment regimens; only 21 usually sought a pharmacist's advice concerning treatment of allergic rhinitis. 12 patients had previously undergone a skin test to identify allergens; and the patients' knowledge about avoidance of allergens and drug therapy, was minimal.

Study 3

Survey among a random sample of General Practitioners from various regions of Malta and Gozo

Method

A two-page questionnaire was sent to 140 General Practitioners from different areas of Malta and Gozo. Questions were asked about: frequency of visits by patients with allergic rhinitis; time of the year visits are most common; presenting symptoms; precipitating factors; medication prescribed as first line treatment; alternative treatment to antihistamines; efficacy of treatment; and usefulness of skin tests.

Results

62 G.Ps. completed and returned the questionnaire, 44 said that they were regularly visited by patients with allergic rhinitis, mostly during the period April-May. The majority of patients were between 15 and 30 years old and the condition was equally common in males and females according to 29 G.Ps. Once again sneezing and blocked nose were the most common symptoms; 48 doctors said allergens were usually unidentifiable and the most commonly presumed precipitating factors were dust (82.8%) and pollen (79.3%); 90.3% of the doctors advised patients on how to avoid possible allergens.

The most commonly prescribed medications as first line treatment are oral anti-histamines (32.3%) or anti-histamines in combination with a decongestant (32.3%). As an alternative to unsuccessful antihistamine therapy 46.8% of the G.Ps. would prescribe a steroid nasal aerosol; and 75.8% said that the treatment available should bring about moderate relief if used correctly. With regards to usefulness of skin tests to identify allergens, the majority of the doctors (n=44) thought that they were not a reliable method.

Discussion

The first study shows that the percentage of patients presenting at the E.N.T. outpatients clinic represents a small but significant portion of the total (10%) and did not decrease over the three years studied. There was no significant trend in the patients' characteristics such as age and sex; however, there were changes in drug therapy towards increased prescribing of long-acting, non-sedating antihistamines, and decreased prescribing of systemic steroids and short-acting sedating antihistamines. This trend is also seen in the prescribing habits of the General Practitioners. This should increase patient compliance since most of these

new antihistamines have a once daily dose and it should decrease side effects.

A number of patients attended E.N.T. clinic due to non compliance to prescribed medication, discontinuation of medication due to side effects, or due to ineffective treatment. The patient interviews highlighted the fact that the majority of patients were not well informed about their condition and medication they were on and on how to try to avoid precipitating factors. They responded positively to the information leaflet given to them about their condition which supports the verbal information and advice given. The information will help patients understand more about their medication and possible side effects, and hopefully will aid compliance and reduce the outpatient visits.

Another characteristic which emerged from the study was that very few skin tests are carried out at St Luke's Hospital, when these could be useful in guiding the doctor as to the cause of the patients' condition. The majority of the G.P.'s did not think that skin tests were reliable since most of the allergens were not specific for Malta. Therefore, if proper use is to be made of skin tests, specific allergen extracts for Malta should be made available. This would then make the tests much more reliable and thus more beneficial to doctor and patient alike.

Conclusion

The cornerstone of effective treatment is patient education on how to avoid exposure to factors which precipitate the condition, and the importance of complying with treatment regimens, especially where prophylactic treatment is involved. This is an area where the pharmacist is in a position to offer an important health education service. A leaflet handed out to the interviewed patients should be published and made available in all pharmacies in Malta and distributed to patients seeking advice. With proper patient education effective relief of symptoms may be obtained and thus minimise the need of patients to attend E.N.T. outpatients clinic at St Luke's Hospital.

References

Tarnasky P.R., Van Arsdel P.P. Jr. Antihistamine therapy in Allergic Rhinitis. *The journal of Family Practice* 1990, Vol 30 No 1: 71-80.

Norman P.S. Allergic Rhinitis. *Journal of Allergy and Clinical Immunology* 1985, Vol 75 No 5: 531-543.