

Effect of topical nasal steroid spray in the treatment of non-specific recurrent / chronic pharyngitis – a trial study

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Abstract

Objective Non-Specific Chronic/Recurrent Pharyngitis is a diagnosis with no definite effective treatment. An array of drugs and therapies has been tried from local applications like Mandl's paint and throat gargles to anxiolytics. None have proved of therapeutic benefit. This trial study is a Pilot study of its kind in to the effectiveness of nasal steroid spray in the treatment of non-specific chronic pharyngitis. This is a prospective randomized study.

Setting Study done in medical college with ambulatory patients centre.

Patients 53 patients were taken up for the study though only 42 could be followed up for a period of 1–2.5 years. Selection done on the basis of symptoms avoiding extreme age groups and subjective persistent relief was central to be considered proof of effectiveness of the treatment. Fluticasone Nasal Spray was used in the study.

Results 35 patients (83.3%) reported some degree of relief in symptoms. 68% had >90% relief of symptoms with only a total of 1–2 sprays. There were 7 failures. Side effects were negligible.

Conclusion Nasal steroid spray is therefore recommended as a most cost-effective, safe treatment method for well-selected cases of Chronic Non-Specific Pharyngitis.

Keywords Non-specific chronic pharyngitis · Nasal steroid spray.

Introduction and objectives of the study

Recurrent or chronic 'Non-specific Pharyngitis' is a diagnosis without a definite aetiology or a multitude of proposed aetiologies. An array of drugs and therapies ranging from local applications like Mandl's paint and throat gargles to anxiolytics have been tried over the decades with no sustained relief in symptoms often times. In the author's experience, other than the specific types of chronic pharyngitis, this condition is most prevalent in the more polluted cities, the causes identified as being dust, smoke and industrial pollutants. These may provoke recurrent attacks of allergic or vasomotor rhinitis with secondary infection, post-nasal catarrh and recurrent or persistent pharyngeal inflammation. A persistent state of hypersensitivity of the nasal and throat mucosa results, causing much distress to the patient. Therapy aimed at preventing the recurrent attacks of allergic or vasomotor rhinitis and the resulting secondary infection therefore should be more cost-effective in the long run and practical in these group of patients with non-specific chronic/recurrent pharyngitis.

This study is aimed at examining the effectiveness of nasal steroid spray in preventing recurrent attacks of allergic/vasomotor rhinitis, post nasal catarrh and the resultant persistent hypersensitive state of throat mucosa causing the symptoms of non-specific recurrent/chronic pharyngitis. It is a prospective, randomized study.

Strangely, there is no available literature of a similar study on this topic in India or elsewhere, in spite of the frequency

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Table 1 Common reported Symptoms

Symptom	No. of patients	Percentage
Irritation throat	34	64
FB sensation	30	56.6
Throat pain	28	42.8
Globus symptoms	10	18.9

Table 2 Associated Symptoms

Associated Symptoms	No. of patients	Percentage
Allergic symptoms	37	70
Post nasal drip	44	83
Acid peptic symptoms	27	51

Table 3 Clinical and Lab Findings

Clinical and lab findings	No. of patients	Percentage
Pharynx – Catarrhal	50	94.3
Hypertrophied	1	1.9
Atrophic	2	33.9
Tonsils – Hypertrophied	18	
Atrophic	34	33.9
	34	64
Sinus tenderness	13	24.5
Allergic nasal findings	6	11
Eosinophilia	13	24.5
X-ray PNS (Positive Findings)	17	32

of this condition. Nasal steroids and oral steroids have been mentioned useful in the treatment of allergic nasopharyngitis of acute nature for relief of pain and other symptoms in two studies by Bulloch B [1] and Rebhun J [2].

Materials and methods

This study was carried out in the Department of ENT, Co-Operative Medical College, Kochi over a 2.5 year period from March 2004 to July 2006 with the last patient entering into the study in July 2005 so that a minimum follow up of one year could be obtained. Patients were selected at random from the ENT OPD, a proper history taken, clinically evaluated to confirm the diagnosis and exclude all other existing illnesses and associated problems. Those from extremes of age groups as well as those mentioned in the exclusion criteria were eliminated from the study. Patients with symptoms of acid peptic disease were also included since the aim of the treatment was a total reduction of hypersensitivity of throat mucosa. For a short period, these patients were also supported with treatment for Gastro-Oesophageal Reflux Disease (GERD).

The Fluticasone nasal spray was started as 2 puffs in each nostril once daily along with an oral antihistamine and tapered off after one week to one puff each nostril daily for another month, followed by one puff each nostril on alternate days tapered down to twice weekly over 3–4 weeks. The antihistamine was usually stopped after the first visit. For some who had much relief, the dose was made one puff bilateral twice weekly after one month itself. This dosing was tapered off by most patients and used on an as-required basis.

Patients were followed up after two visits (at one week and one month) as and when they could come, though towards the end of the study, except for 11 patients who were lost to follow-up, the rest could be summoned and reviewed. The results were analyzed in 4 categories – those having 1. 100% relief, 2. >90% relief, 3. >75% relief and 4. >50% relief.

Observations

The study was carried out over a two-year period. 53 patients were included in the study for whom a follow up over a range of 1 – 2 years was obtained. As it was a prospective study patients' follow up could not be uniform for all and while patients in the earlier part of the study could be followed up for 2 – 2 ½ years, the latter entries could not get such a long follow-up, yet the least is a one year follow-up which may be adequate enough to predict the effectiveness of a new treatment schedule. Of the 53 patients, there was female predominance (58%) over males (41%) in patients coming with recurrent / chronic non-specific pharyngitis.

Age wise the majority (85%) fell in the 3rd – 5th decade. It seemed that people over 50 years hardly give importance to throat symptoms unless very significant.

The occupation related distribution showed that the most affected group is that of housewives (34%) followed by students, then manual laborers.

Considering the total duration of symptoms, the majority (40%) had symptoms between 6 months – 2 years. There were two patients who were sufferers for >10 years. The commonest symptom reported was throat irritation, followed by foreign body sensation and throat pain. Of the associated symptoms, most commonly seen was postnasal drip (83%). Allergic symptoms were seen in 37 patients (70%) while a history of Bronchial Asthma was obtained only in three out of 53 patients. Only two each out of 53 patients gave a history of smoking occasionally and occasional alcohol intake.

A history of being treated for allergy in the past was given by 25 patients (47%).

Upon Clinical examination, significant findings were that 50 patients (94%) of 53 had a Catarrhal Pharynx while the tonsils were atrophic in the majority (64%). Eosinophilia was detected only in 13 patients (24.5%). Allergic nasal findings were positive only in 6 patients – a mere 11%. Positive X-ray findings were seen in 17 patients, which

were mostly haziness while 3 patients showed chronic changes too.

Results of the trial study

Out of 53 patients who were included in the beginning of the study, 11 had to be excluded as they were lost to follow up. Of the 42 patients actually studied, 7 were concluded to be failures, as they did not get any significant relief in symptoms with the steroid spray (16.7%). 83.3%, i.e. 35 patients responded in various degrees to the steroid spray trial. While 100% relief was reported at the end of 1.25–2 years by 18 of them, i.e. 51.4%, >90% relief was had by six (17%) more patients which probably is almost as good a result. Almost 30% participants had > 75% relief while only a minority, three of them (9%) showed about 50% relief.

Regarding the total number of units of spray used, 22 patients reported using only one unit over the whole duration of the study, which accounts for 65% of the total number of participants. This is a very encouraging pointer to the cost-effectiveness of this particular therapy. Ten of them reported using two units of spray, while a minority (3 patients) had to use more than 2 units.

Failures and side effects

Some participants reported persistent recurrence of throat symptoms even on spray while some participants were unable to tolerate the spray and had vomiting and throat discomfort (3 patients). The latter would suggest side effects of the spray, which was reported only in 7% participants.

Discussion

Recurrent / Chronic non – specific pharyngitis is a disease which otolaryngologists more often try not to entertain, however distressing it is to the patients. Though not of fatal nature or functionally disabling, it still is a problem that comes always to our OPDs and therefore worth finding a more plausible / worthy solution to, than already existing. Otolaryngologists down the ages have prescribed gargles,

mouthwashes or other remedies such as Mandl's paint. There is no evidence that any of these measures is of therapeutic benefit [3].

As seen from the study, symptoms commonly complained of were those of throat irritation, foreign body sensation and throat pain. Majority had associated nasal / throat allergic symptoms (70%), postnasal drip or acid peptic symptoms. All of these result in a state of hypersensitivity of the throat mucosa, which is subjectively perceived in varying degrees as one of the above. Post-nasal drip may be due to nasal irritation by allergens or residual clearing of post infected sinuses. It is known that the general hypersensitivity of the URT (Upper Respiratory Tract) mucosa is brought down by the use of steroid sprays. So that though associated symptoms of post-nasal drip and that of Acid Peptic Disease is also seen in quite a high percentage besides allergic symptoms, in all these situations a reduction of the mucosal hypersensitivity goes a long way in alleviating symptoms and effecting relief to the sufferer. As seen from the result of the study, >50% sufferers had total relief of symptoms while another 17% had > 90% relief. This with an occasional puff of nasal steroid spray and a total of only 1 – 2 units of spray over 2 years. No significant side effects were reported except occurrence of throat symptoms in those who were included as failures.

Hence the author recommends Nasal Steroid Sprays (Fluticasone was used in the study) as a safe, cost-effective method to be used in the treatment of well-selected recalcitrant cases of Non-specific Recurrent / Chronic Pharyngitis.

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