

Pharyngitis Sicca-An Aetiopathological Study

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Abstract

Pharyngitis sicca is a source of considerable mental anguish to the patient as well as to the clinician due to lack of accurate identification of aetiological factors and an effective treatment. A study of 200 patients conducted in E.N.T. department. of SMHS Hospital Srinagar (Kashmir) revealed an associations of various disorders with phayngitis sicca. One hundred and sixty-four cases (82%) clinically presented in winter when there was significant fall in temperature and 104 cases had recurrence in next winter, chronic nasal obstruction was observed in 137 cases (68.5%), chronic sinusitis in 90 cases (45%) vitamins and iron deficiency in 90 cases (45%), pulmonary tuberculosis in 7 cases (3.5%) and 4 cases (2%) of each chronic liver diseases and renal diseases. History of smoking was positive in 58 cases (29%) and urban to rural patients ratio was 3 : 2.

Key Words

Pharyngitis sicca, Atrophic changes, Pharynx.

Introduction

Pharyngitis sicca patients usually present with discomfort in throat, foreign body sensation and dryness in throat. Various local disorders like a trophic rhinitis, nasal obstructions, granular pharyngitis, habitual mouth breathing and systemic disorders like malnutrition, lupus, hypothyroidism, tuberculosis, chronic renal and liver diseases are reported to be contributing factor for the this disease (1-4).

Material and methods

A prospective study was conducted from Aug. 1993 to January 1995 in ENT OPD of SMHS Hospital Srinagar, Kashmir. A total number of 200 patients were

enrolled for this study and they were subjected to detailed clinical evaluation. Routine blood investigations, liver function tests, VDRL, kidney function tests, thyroid function tests, blood sugar (random) were done in all the cases. Radiological study of chest, paranasal sinuses and cervical spine and histopathological examination of pharyngeal mucosa was done in 150 cases.

Results

Out of 200 patients of pharyngitis sicca, 24 cases (12.0%) were having atrophic rhinitis also. One hundred and thirty-four cases (67.0 percent) were in age group of 21-40 years. One hundred and two patients

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(51.0 percent) were males, 120 patients (60.0 percent) were from urban area. The detailed clinical, radiological and histopathological findings are shown in table No. 1 to 5.

Table No. 1

History	Number of cases	Percentage
1. Poor dietary habits	60	30.00
2. Excessive spices intake	61	30.50
3. History of smoking	70	35.00
4. Use of snuff	9	4.50
Total	200	100

Table No. 2

Systemic Disorders	No. of Cases	Percentage
1. Anaemia	80	40.0
2. Hypothyroidism	18	9.0
3. Pulmonary koch's	7	3.50
4. Rheumatoid arthritis	2	1.0
5. Chronic liver disease	4	2.0
6. Chronic renal disease	4	2.0

Table No. 3

Local Examination	No. of Cases	Percentage
1. Dry pharyngeal mucosa	160	80.0
2. Crusts	26	13.0
3. Wide pharyngeal airway	11	5.50
4. Lupus	3	1.50
5. Bilateral hypertrophied turbinates in nasal cavity	132	66.0

(See Photograph No. 1)

Table No. 4

Radiological Study	No. of Cases (150)	Percentage
B/L hazy maxillary sinuses	68	45
Unilateral hazy antrum	8	5
Early changes of cervical spondylosis	16	11
Straightening of cervical spine curvature	58	39

Table No. 5

Histopathology Study	No. of Cases (n=150)	Percentage
Chronic cellular infiltrate	54	36
Decreased mucus glands	46	31
Fibrosis in lamina propria	23	15
Squamous metaplasia	4	3
Fibro-collagenous tissue	23	15

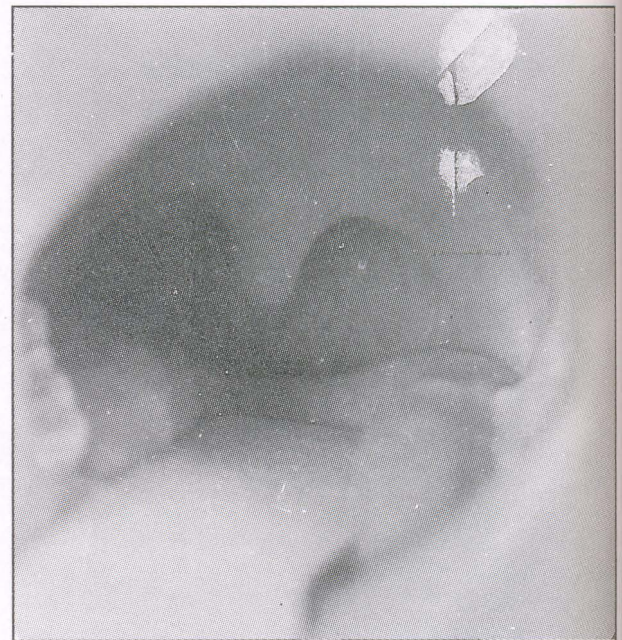


Fig. I : Photograph showing pharyngitis sicca.

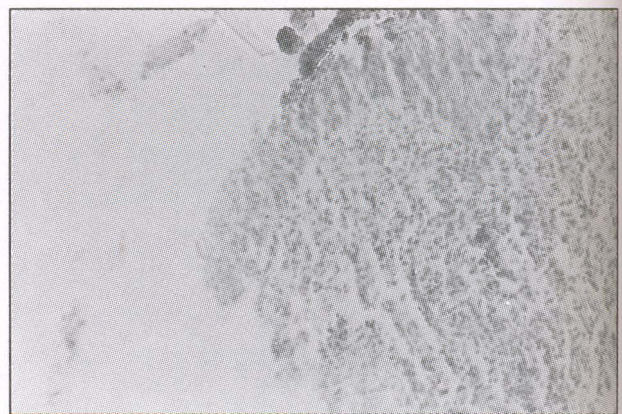


Fig. II : Microphotograph showing the histological features of squamous metaplasia, glandular atrophy with round cell infiltrate. The biopsy was taken from pharyngeal mucosa (10 X).

Discussion

Pharyngitis sicca patients have excessive crusts of airway which cause mucosal drying due to destruction of mucous glands. The process may extend as far as larynx and trachea. The deminution of mucous secretions leads to the formation of crusts with secondary infection. The atrophic changes are described to be direct extension of atrophic rhinitis (2). One hundred and sixty-four cases (82%) of present study presented clinically in winter and 104 of them (52%) had recurrence of symptoms in subsequent winter. This explains the seasonal relationship. During cold climate, the inhalation of cold and dry air with ambient temperature decreases the ciliary activity of mucosa leading to stasis of secretions in the nose and crusting which produces secondary effects on pharynx that leads to sicca condition. The cold climate seems to have significant role in the aetiopathogenesis of atrophic changes in the upper respiratory tract. Similar observations are made by several authors (3,5,6). These authors have concluded that mucociliary clearance is reduced in winter.

Most of our patients were from urban areas where environmental pollution is more as compare to rural areas. This is in agreement with the observations made by many authors that environmental pollution also contributes to the pathogenesis of pharyngitis sicca (1-5). Similarly, tobacco smoking is described as one of the factors responsible for this disorder. Twenty-nine percent cases of this study were smokers.

Malnutrition with deficiency of iron, vitamins and proteins is reported by Zakrzewski in 1993, to be responsible for pharyngitis sicca in developing countries (4). Sixty cases (30 percent) of our study were anaemic with iron and/or vitamins deficiency, 68.5 percent cases were having nasal obstruction and 45 percent had chronic sinusitis. These associations are noted by other authors also (5). A wide number of systemic disorders have been blamed as underlying predisposing factors to pharyngitis

sicca. They include, systemic lupus erythematosis, hypothyroidism, tuberculosis, chronic renal and liver disorders (1,4). We noted hypothyroidism in 9 percent cases, tuberculosis in 3.5 percent, chronic liver and renal disease in 2.5 percent each. The precise role of these diseases in genesis of pharyngitis sicca needs further clarification.

Oropharyngeal biopsy was taken in 150 cases. The histopathological examination revealed chronic inflammatory cell infiltrates in lamina propria with fibrosis and atrophy of seromucinous glands. Three percent cases showed squamous cell metaplasia. All these cases had history of smoking for longer than one decade. Similar observations are reported in literature (1,2). They also described that atrophic changes in pharynx, larynx, trachea and nasopharynx with lymphocytic infiltrate in lamina propria, as one of the characteristics of this disease, has immunological background. The existence of altered cell mediated immunity in these regions is noted by many authors (1,3).

In our study, 58 cases showed straightening of the cervical curvature. There seems to be a relation between mucosal atrophy and cervical curvature changes, whether it is a cause or effect needs further study.

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