Pattern of Malignant Tumours in Otolaryngology in Karachi

Pages with reference to book, From 110 To 114

M.H.A. Beg, Amina Rehman, S. Malik, A. Qayum (Department of Otolaryngology, K.V. Social Security SITE Hospital, Karachi.)

Abstract

One hundred and sixty three malignant lesions in the region of the pharynx, oesophagus and oral cavity, in secured workers and thus families, seen over a period of six years (1976 to 1981) have been analysed. The valecula and pyriform fossa were the most common sites in the pharynx and the cheek mucosa in the oral cavity. The incidence was 10 cases in 100,000 secured workers per year. Males between the ages of 41 and 50 years and mostly emigrants from India with specific chewing habits were usually affected. Histopathology revealed 84% of the tumours to be squamous cell carcinoma and TNM staging classified most to be in the advanced stage. No evidence was found to label sub-mucous fibrosis as a premalignant condition (JPMA 33 : 110,1983).

Introduction

Cancer of the pharynx and oral cavity is frequently encountered in the Indo-Pakistan subcontinent. The reports available from these regions are all from cancer centres which exclusively manage such cases (Karim, 1971; Jussawalla, 1973; Zaidi et aL, 1974) and cater to patients from all over the country and abroad. A true incidence can therefore not be had from these statistics as they reflect higher figures. This study reveals the cases of cancer in. otolaryngology in ENT practice in a general hospital seen over a period of six years. Harrison (1972) has expressed views that a personal series constitutes more valuable and practical information.

Material and Methods

The patients were selected from the population of secured workers attending the KV Social Security SITE Hospital. It has 326 beds and is run by the Sind Employees Social Security Scheme. The ENT Unit of the hospital has 20 beds and it deals with all general E.N.T. problems. All patients were seen in the out patients department. Their symptoms, age, sex and ethnic origin was recorded. A complete otolaryngological examination was conducted and lesions suspected to be malignant were staged according to TNM classification (UICC, 1973). When found necessary, an examination under anaesthesia was carried out and in a few cases the staging had to be altered. All cases were subjected to a biopsy followed by histopathology and coding was done according to the method suggested by ICD-O International classification of Disease for Oncology (WHO, 1976).
In 13 cases the biopsy had to be repeated. as the result was inconclusive due to secondary infection and sloughing.

Results

One hundred and sixty three cases of malignancy located in the oral cavity, pharynx and oesophagus were diagnosed in a period of six years from 1976-1981 (Table I).

Table I
Yearly Distribution of Cancer Patients.

1976	16
1977	19
1978	28
1979	40
1980	30
1981	30
TOTAL	163

Sixty five patients belonged to the age group between 41 and 50 years and 54 were below 40 years (Table II).

Table II
Age Distribution of Cancer Patients.

Below 40 years	54
41 to 50 years	65
51 to 60 years	30
61 to 70 years	9
71 to 80 years	5
TOTAL	163

Males were affected more than females in a ratio of 4 1 (Table III).

Table III

Sex Distribution of Cancer Patients.

Male	134
Female	29
TOTAL	163

The most common site of the lesion was the pharynx (Fig.1),

Fig. 1. A patient with ulcerative lesion in right valecula and a neck gland.

followed by the oesophagus and the cheek (Table IV).

Table IV Site of Distribution.

Pharynx	72
Oesophagus	22
Cheek	16
Palate	2
Tongue	5
Vocal Cord	13
Lymph Gland	10
Bronchus	8
Ethmoid Sinus	3
Maxillary Sinus	2
Parotid Gland	1
Submandibular Gland	1
Nasal Cavity	1
Thyroid Gland	1
Skin	6
TOTAL	163

The distribution of the pharyngeal cancer(44%) showed 22 originating in the valecula, 21 in the pyriform fossa, 11 in the tonsils, 2 in the postcricoid and one in the nasopharynx. In 15 cases the lesions were so extensive, that it was difficult to localise the site of origin (Table V).

Table V

Site of Origin of Cancer in Pharynx.

Valecula	22
Pyriform fossa	21
Too extensive to define	15
Tonsil	11
Postcricoid	2
Nasopharynx	1
TOTAL	72

Oesophagus was the second commonest site for cancer. Of 22 cases (13.4%), 12 had lesion in the middle third, 4 in the upper third and 6 in the lower third of the oesophagus. Glottic cancer was found in 13 patients (8%) which is a smaller number when compared to the West (Harrison, 1973). Three patients had lesions in the Ethmoid sinus and 2 in the Maxillary Sinus (Fig.2).

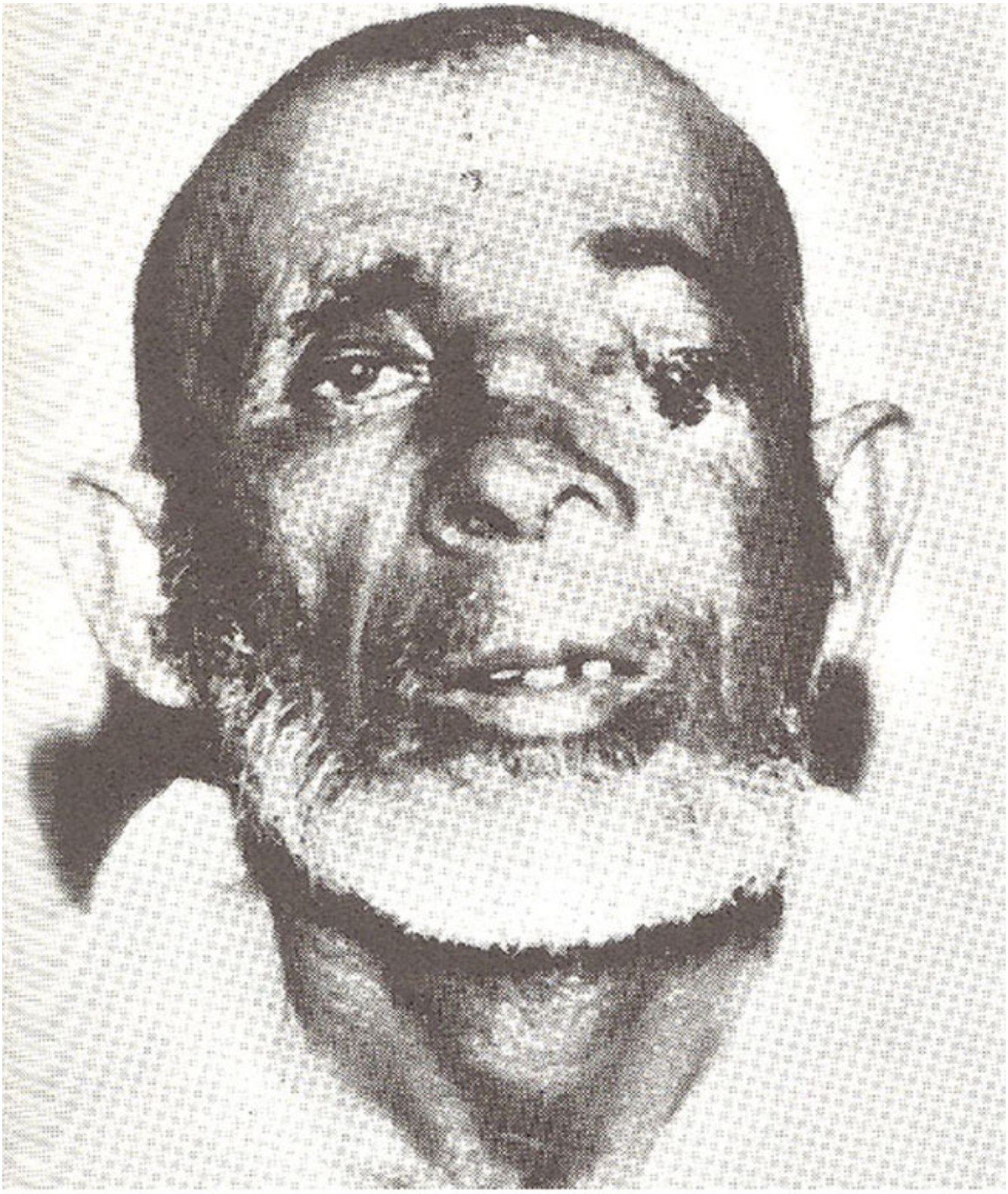

Fig.2. A Baluch having Cancer in left Ethmoid Bone.

Sixteen cases had cancer of the cheek (Fig.3).

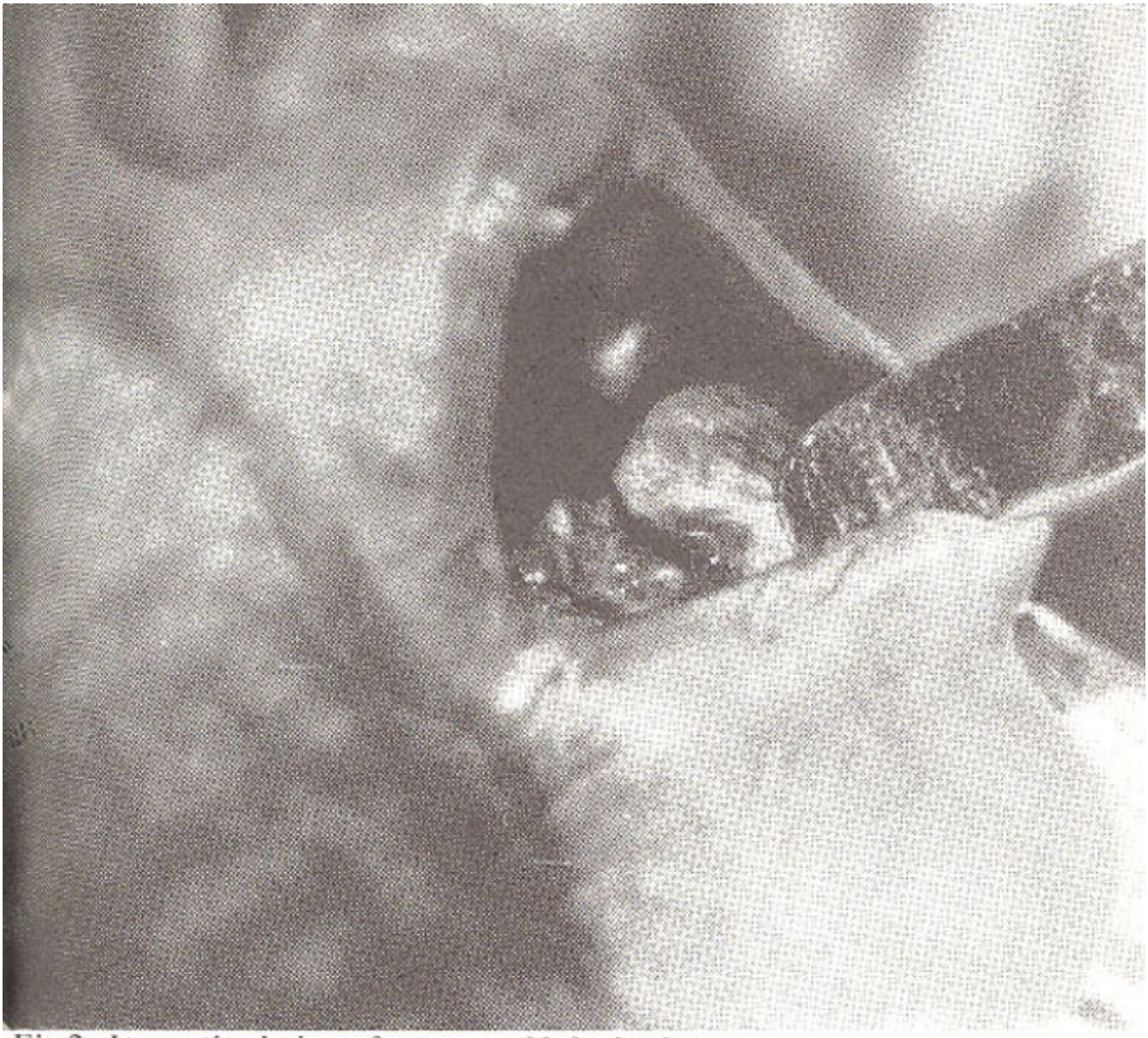

Fig.3. Ulcerative lesion of mucosa of left cheek.

Histological examination showed squamous cell carcinoma in 139 cases (8 5%). Six cases were anaplastic and five revealed basal cell carcinoma.Details of the histology reports are shown in Table VI.

Table VI
Histology of Cancer Patients.

Basal Cell Carcinoma	5
Adenocystic Carcinoma	3
Anaplastic Carcinoma	6
Squamous Cell Carcinoma	139
Adeno Carcinoma	1
Hodgkins Disease	4
Melanoma	1
Lymphosarcoma	2
Transitional Cell Carcinoma	1
Lymphosarcoma	2
Transitional Cell Carcinoma	1
Follicular Carcinoma	1
TOTAL	163

TNM staging revealed 74 cases in T3 stage and 55 in the T2 stage. No case was seen in the Ti stage or carcinoma in situ (Table VII).

Table VII
TNM Staging in 139 Squamous Cell CA Patient.

T1S	Nil
T1	Nil
T2	55
T3	74
T4	7
To	3
N1	4
N2	11
N3	5
M1	1

A specific racial pattern was observed in the series. 128 cases were emigrants from India, having prevalent chewing habits of betel and tobacco (58), and this was combined with cigarette smoking in 32 individuals (Table VIII).

Table VIII

Habitats of Cancer Cases.

Pan and Tobacco chewing	58
Pan, Tobacco Chewing and Cigarette smoking	32
Cigarette smoking	32
Pan chewing	15
Niswar	8
Nil	18
TOTAL	163

Discussion

Pindborg (1980) has described the incidence of cancer as "the number of new cases of disease in a defined population usually 100,000 in a given period of time, usually one year." As there is no cancer registry in Pakistan, it is difficult to calculate a definite incidence. Frequency of malignant tumours (Jafarey and Zaidi, 1976) and specially oral lesions (Jafrey et al., 1972) have been reported as the number of cases present at a certain time, which is actually not a correct picture.

Figures from India are available from large cancer centres (Jussawalla, 1973; Hirayama, 1966) which also do not depict a true incidence. The patients attending these centres are from all over the country and also from abroad.

In the present series the incidence is obtained from the secured workers population attending the K,V. Social Security SITE Hospital, which is approximately 381, 444. The statistics of the cancer cases in the field of Otolaryngology thus amounts to one in 9536 individuals and being a total of forty per year.

The relationship between oral cancer and chewing of pan and tobacco has been reported earlier (Jafarey and Zaidi, 1976; Hirayama, 1966; Paymaster et al., 1968). The cheek mucosa,tongue (Fig.4),

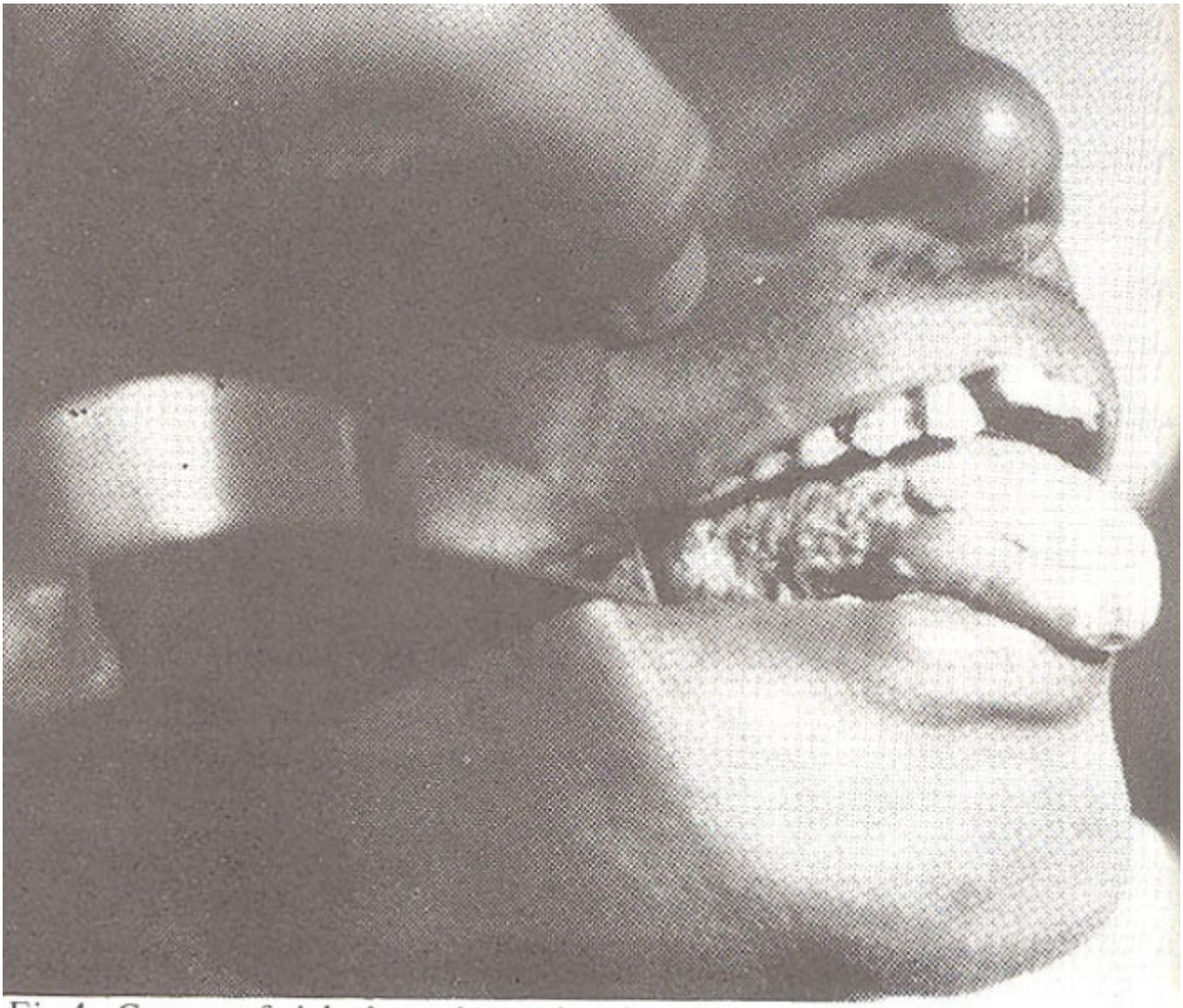

Fig.4. Cancer of right lateral margin of tongue.

valeeula and the pyriform fossa are the usual sites, as they directly come in contact with tobacco. Paymaster (1957) reported that 70% of Oropharangeal cancers originated in the pyriform fossa. In this series pyriform fossa and valecula were involved in an equal number of cases.

The frequency of chewing and the duration of keeping the quid also contributes to the risk (Hirayama, 1966). The use of large amount of chillies in food is an additive risk factor specially for lesions in lateral pharyngeal gutter of the tongue, valecula and the pyriform fossa. Immigrants from north and west of India who settled in Karachi in 1947 after the partition of the subcontinent, have specific chewing habits and take spicy foods. In this series 78.5% belonged to this emigrant group. The pattern of the disease is very similar to that studied in Bombay (Paymaster, 1957). The only difference noted was in the smoking habits. Bidi is smoked in a smaller quantity in Karachi (Mehmood et at., 1974) as compared to Bombay.

Naswar (Snuff) kept under the tongue has been labelled as an attributable factor for causing cancer of the floor of the mouth. This is a common habit in the north and west of Pakistan. In the present series, the number of pathans using naswar was too small to determine the relationship between the two. There were 19 pathans (11.6%) and 8 Baluchis (4.9%). Another study by Sobin (1969) also shows a low frequency of oral cancer in Afghanistan where the chewing of tobacco and lime is also customary.

Other workers have reported a frequency of skin cancer in the North of Pakistan (Zaidi et al., 1977), Afghanistan (Sobin, 1969) and Iran (Habibi. 1965).
Submucosal fibrosis is said to be a premalignant condition (Pindborg and Zacharian 1965) with 30 to 40% of ihe caseCdeveloping cancer. Other workers could not establish any such relationship (Sirsat and Khanolkav, 1962) having only 4% of their cases turning malignant. In another series of 650 cases of oral cancer (Paymaster, 1956), 52% involved the tongue which is not affected by sub-mucous fibrosis, 18% were in the buccal mucosa where this condition is uncommon. The palate mucosa or anterior tonsillar pillar which are the common sites for sub-mucous fibrosis (Fig. 5)

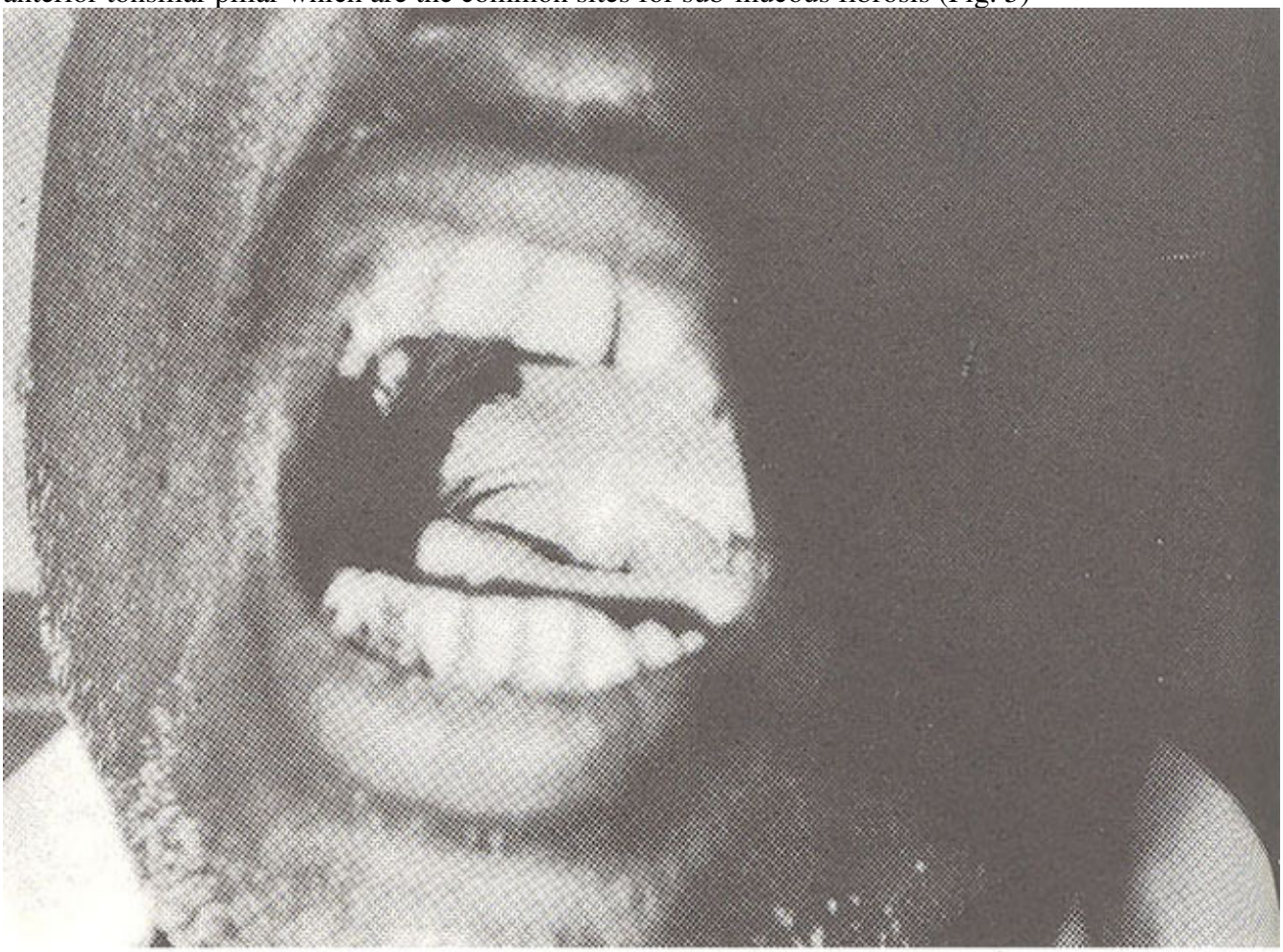

Fig.5. Blanching of anterior pillar and soft palate in sub-mucosal fibrosis.

showed no involvement. In the present series no case with sub-mucous fibrosis was seen.

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