

# OESOPHAGITIS - A STUDY IN 301 PATIENTS

Pages with reference to book, From 129 To 131

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## Abstract

A retrospective analysis of 301 cases of oesophagitis was carried out regarding age, sex, occupation, origin, habits, blood groups and symptoms. Role of smoking as a causative factor is supported. Pain in the epigastrium was found to be the most frequent symptom. Heartburn was significantly more frequent in patients without any associated disease. The suggestion that oesophagitis is a part of the spectrum of peptic ulcer disease is supported (JPMA 38: 129, 1988).

## INTRODUCTION

Reflux of gastric or duodenal<sup>1</sup> contents is usually implicated in pathogenesis of reflux oesophagitis. Several factors like cigarette smoking, caffeine, fatty diet, obesity, pregnancy and vomiting are associated with reflux.<sup>2-5</sup> Patients with reflux oesophagitis usually present with retrosternal burning, water brash and belching. Sometimes atypical symptoms or presence of an associated disease may, however, complicate the clinical picture. A retrospective study was therefore, undertaken to find out clinical presentation of oesophagitis in our patients and its association, if any, with factors like age, sex, occupation, place of origin, habits and blood groups.

## PATIENTS AND METHODS

Retrospective analysis of 301 patients with oesophagitis, seen at PMRC Research Centre, over a period of 7 years (from 1979 to 1985) is being presented. Endoscopy was performed under local anaesthesia with 4% xylocaine using Olympus G—IF P2 endoscope. Oesophagitis was said to be present when finding such as an irregular z-line, mucosal hyperaemia, erosions and/or ulcerations were noted. Analysis of clinical features was carried out using data obtained from pre-recorded proformas. Information regarding acid perfusion test was available in 31 patients. Eight patients with candidiasis and 1 with oesophagitis due to ingestion of irritant substance were excluded from the study.

## RESULTS

Majority of patients (64%) were between 3rd and 5th decade of life, the average age (mean  $\pm$  SD) being  $42 \pm 16.1$  years.

### Sex:

The male to female ratio was 2.2:1.

### Occupation:

Twenty-two per cent of the patients were skilled personnel, 9% were professionals, 8% businessmen and 7% unskilled workers. The rest belonged to a miscellaneous group which included housewives.

### Place of Origin:

Place of origin was known in 218 patients; of these 44% were migrants from India; Sind contributed 28%, Punjab 10%, NWFP/Kashmir 7% and Baluchistan 5%, 4% were from Bangladesh, and 1% each from Afghanistan and Africa.

### Habits:

Smoking was more common in males (56.7%) compared to females (2.1%), while tobacco chewing was more common in females (25.8%) compared to males (12.9%). None of the females used alcohol or narcotics (Figure 1A).

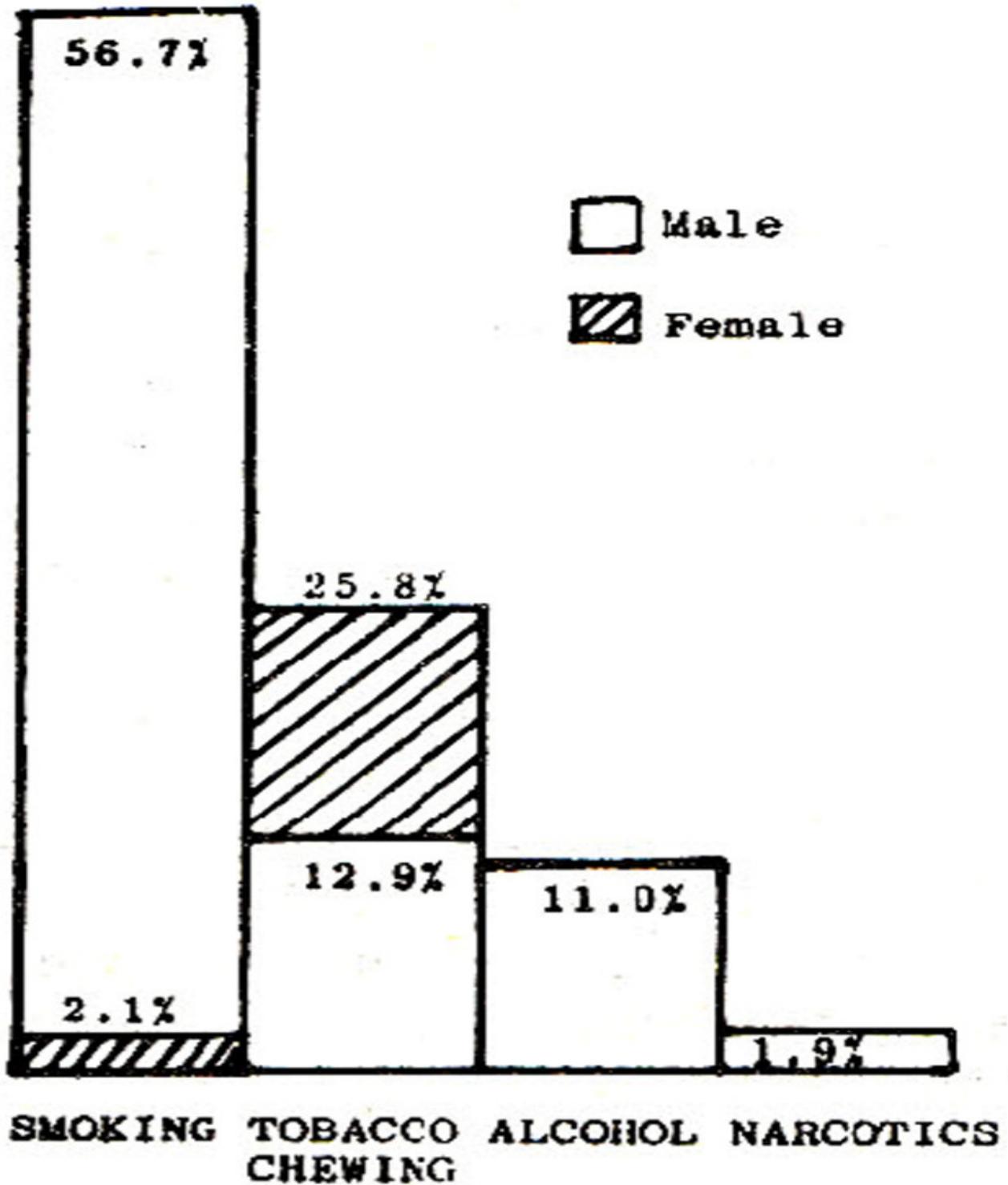


Figure 1 A. Habits.

The daily consumption of cigarettes in males was known in 94 patients (Figure 1B).

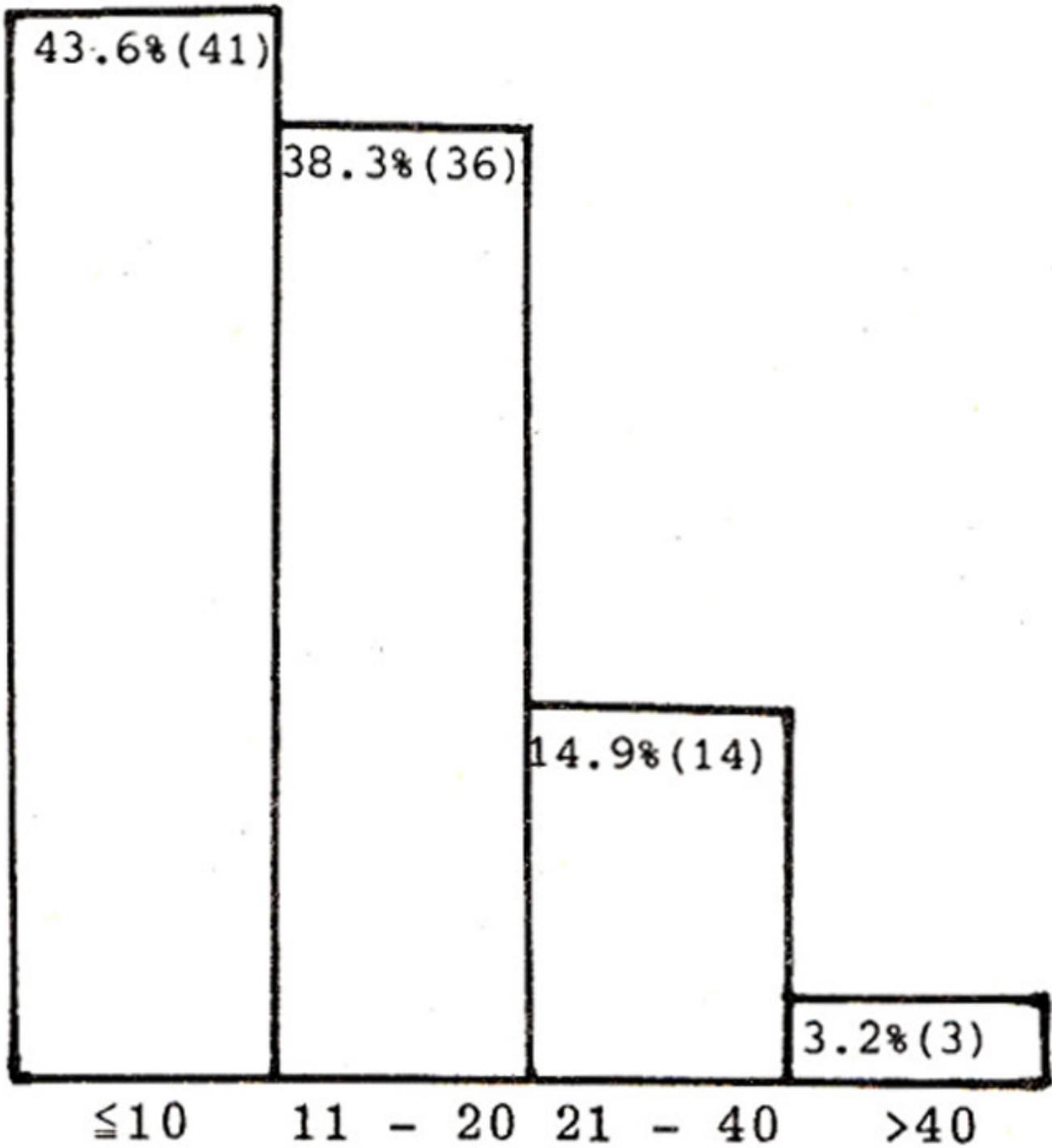


Figure 1B. Cigarette consumption per day (in males).

**Blood Groups:**

Blood group was analysed and recorded in 92 patients, being 4-30.4%, B-30.4%, O-28.3% and AB—10.9%.

**Associated Diseases:**

Of 301 cases, 118. (39.2%) had no associated disease (Group A), 183 (60.8%) had an associated alimentary, hepatobiliary, pancreatic or urinary tract disease (Group B). Retrosternal burning was more

frequent in group A (Table I).

**Table I. Clinical Features of Oesophagitis, with and without associated Diseases.**

<b>SYMPTOMS</b>	<b>GROUP A*</b>	<b>GROUP B**</b>	<b>TOTAL</b>
	<b>No. (%)</b>	<b>No. (%)</b>	<b>No. (%)</b>
<b>Pain</b>	91 77.1	146 79.8	237 79.0
<b>Retrosternal burning</b>	72 61.0	44 24.0	116 53.3
<b>Vomiting</b>	56 47.5	102 55.7	158 52.6
<b>Waterbrash</b>	43 36.4	62 33.9	105 35.0
<b>Weight loss</b>	35 29.7	66 36.1	101 33.6
<b>Haematemesis</b>	38 32.2	61 33.3	99 33.0
<b>Nausea</b>	30 25.4	57 30.6	87 29.0
<b>Malena</b>	33 28.0	48 26.2	81 27.0
<b>Belching</b>	21 17.8	32 17.5	53 17.6
<b>Dysphagia</b>	13 11.0	19 10.4	32 10.6
<b>Burning Epigastrium</b>	14 11.9	13 7.1	27 9.0
<b>Acid Eructations</b>	9 7.6	13 7.1	22 7.3
<b>Odynophagia</b>	1 0.8	5 2.7	6 2.0

\* Patients without any associated disease.

\*\*Patients with associated disease.

The main site of pain in both groups was the epigastrium (Table II).

**Table II. Site of Pain.**

Site of Pain	GROUP A*	GROUP B**	TOTAL
	No. (%)	No. (%)	No. (%)
Retrosternal	1 1.1	2 1.4	3 1.3
Retrosternal & Epigastrium	0 0	8 5.5	8 3.4
Upper abdomen***	79 86.8	122 66.7	84 84.8
Epigastrium only	62 68.1	82 56.2	144 60.7
Other****	10 11.0	13 8.9	23 9.7
Not recorded	1	1	2
<b>Total</b>	<b>91 77.1</b>	<b>146 79.8</b>	<b>237 79.0</b>

\*Patients without any associated disease.

\*\*Patients with associated disease.

\*\*\*Includes any one or more of : Rt. hypochondrium, Epigastrium and left hypochondrium.

\*\*\*\* Includes any region of abdomen not mentioned above, also includes patients complaining of diffuse pain in whole abdomen.

Mean  $\pm$  SD duration of symptoms was  $48 \pm 62$  months ( $44 \pm 4.7$  in group A and  $32 \pm 4.9$  in group B). Common associated diseases were: Peptic ulcer 78, duodenitis 43 and gastritis 35 cases.

**Lax Lower Oesophageal Sphincter:**

Twenty-two patients were recorded as having lax lower oesophageal sphincter; 9 were smokers and 13 non-smokers. Relation of smoking to laxity of lower oesophageal sphincter was not statistically significant.

### **Acid Perfusion Test:**

Acid perfusion test was performed in 31 patients, 24 (77.4%) were positive, 5(16.1%) negative and 2(6.5%) inconclusive.

### **OESOPHAGITIS Table 1 DISCUSSION**

Reflux oesophagitis can be diagnosed by acid perfusion test, radiology, endoscopy and histology.<sup>7-9</sup> In the present study, endoscopy was chosen as the diagnostic criterion because of its high degree of specificity (96%)<sup>8</sup>. Slight predominance of males noted in the present study is difficult to explain, considering the fact that oestrogen, progesterone and pregnancy, which have been implicated in reflux are found in females<sup>5</sup>. Smoking, a predominantly male habit in our community, could be responsible for it.<sup>10</sup> Cigarette smoking lowers the lower oesophageal sphincter pressure and thus predisposes reflux.<sup>11</sup> In the present study no significant association was found between endoscopically demonstrable lax lower oesophageal sphincter and cigarette smoking. Alcohol, narcotic drugs like morphine, pethidine and benzodiazepine also reduce the lower oesophageal pressure and pre-dispose to reflux oesophagitis.<sup>5</sup> In the present study 11% patients were taking alcohol and 1.9% narcotics. Pain, the leading symptom in the present series, occurred mostly in epigastrium (60.4%) rather than in the retro-sternal area (1.3%). Retrosternal burning was significantly more frequent in patients who did not have an associated gastrointestinal hepato-biliary pancreatic, or urinary tract disease ( $P < 0.001$ ). Of the major associated diseases, peptic ulcer (78 cases) followed by duodenitis (43 cases) and gastritis (35 cases) were most frequent. This supports the suggestion that reflux oesophagitis is a part of spectrum of peptic ulcer disease.<sup>12</sup> Lax lower oesophageal sphincter seen on endoscopy is a subjective finding. It needs to be studied manometrically and defined precisely before any correlation with oesophagitis or its causative factors can be validly established.

### **REFERENCES**

1. Matikainen, M., Taavitsainen, M. and Kalima, T.V. Duodenogastric reflux in patients with heartburn and oesophagitis. *Scand. J. Gastroenterol.*, 1981;16: 253.
2. Shnedorf, J.G. and Ivy, A.C. The effect of tobacco smoking on Alimentary Tract: An experimental study of man and animal. *JAMA.*, 1939; 112 : 898.
3. Chohen, S. Pathogenesis of coffee induced gastrointestinal symptoms. *N. Engl. J. Med.*, 1980; 300: 122.
4. Newton, J.R. and Temple, J.G. Gastro-oesophageal reflux In pregnancy. Altered function of barrier to reflux in asymptomatic women during early pregnancy. *Scand. J. Gastro-enterol.*, 1984;19 :85.
5. Roth, J.L.A. Etiology and pathogenesis, in Bockus gastroenterology. Edited by J.E. Berk, Philadelphia, Saunders, 1985, p. 730.
6. Banatwala, N.S. and Zuberi, Si. The add perfusion test in diagnosis of oesophagitis. *Trop. Gastroenterol.*, 1982; 3: 93.
7. Banatwala, N.S., Mian, TA., Hassan, Ti. and Zuberi, Si. Add perfusion test, endoscopy and radiology in diagnosis of oesophagitis. *JPMA.*, 1981;31 :62.
8. Sullivan, B.H. Jr. Esophagoscopy, in Bockus gastroenterology. Edited by I.E. Berk, Philadelphia, Saunders, 1985, p. 746.
9. Ismail-Beigi, F., Horton, P.F. and Pope, C.E. Histological consequences of gastrooesophageal reflux in man. *Gastroenterology*, 1970; 58 : 163.
10. Mahmood, Z. Smoking and chewing habits of people in Karachi — 1981. *JPMA.*, 1982; 32:34.
11. Dennish, G.W. and Castell, D.O. Inhibitory effect of smoking on the lower esophageal Sphincter. *N.*

Engl.J. Med., 1971;284 :1136.

12. Roth, J.L.A. Reflux esophagitis and esophageal ulcer, in gastroenterology. Edited by Henry L. Bockus. 3rd ed, Philadelphia, Saunder, 1974.