EMOTIONAL FACTORS IN DUODENAL ULCER

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ABSTRACT

Anxiety and depression levels in 25 duodenal ulcer patients were compared with equal numbers of age and sex matched normal controls, hospitalised patients with nonpsychosomatic medical illnesses and inpatients with neurosis. Sinha's anxiety scale and Hamilton's rating scale for depression were used to measure the levels of anxiety and depression respectively. Patients with duodenal ulcer were significantly more anxious and depressed as compared to normal subjects and patients with medical illnesses. Duodenal ulcer patients were significantly less anxious and depressed as compared to neurotics. Therapeutic role of tricyclic antidepressants in management of duodenal ulcer is briefly discussed.

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KEY WORDS : Duodenal ulcer; Anxiety; Depression.

Introduction

The onset or aggravation of epigastric distress, nausea, or bleeding after emotionally disturbing incidents is an old observation made not only in anecdotal reports but statistically supported by various studies on duodenal ulcer patients [1-3]. Anxiety and depression are outstanding components of these emotional disturbances but may not be recognised by the patient [4-6]. An important drawback of most of these studies was the failure to use standardised instruments to measure anxiety and depression. Moreover, it is well known that these emotional disturbances may be a transient phenomena, a sequelae to a disease condition or exist as a personality trait. However, in most of the earlier studies the specific nature of the emotional disturbances was not properly identified by using suitable multiple comparison groups. An attempt is made here to evaluate the nature of emotional disturbances in duodenal ulcer patients by comparing them with normal subjects, a hospitalised patient group and patients with neurosis.

Material and methods

Twenty five consecutive male inpatients with duodenal ulcer formed the patient group. Patients were included in the study after the diagnosis had been confirmed by radiology or endoscopy, and coexisting medical illnesses had been excluded by suitable laboratory tests and radiological investigations. The control group consisted of age and sex matched subjects who were free of physical and psychiatric illnesses, drawn from attendants of patients. An equal number of consecutive patients admitted to the medical ward with nonpsychosomatic disorders formed the hospitalised patient group, while twenty five consecutive inpatients with neurosis formed the neurotic group.

Sinha's anxiety scale (SAS) was utilised to measure the anxiety of the subjects. It is a clinically useful instrument for quick estimate of manifest anxiety and the test can be applied upon psychiatric patients and normals [7,8]. Hamilton's rating scale for depression (HRSD) [9] which has been validated for Indians [10] was utilised for measurement of depression. The tests were administered individually to the subjects. The scoring was

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done as per the test manual. The scores were compared by analysis of variance (ANOVA).

Results

Sociodemographic variables of the patients and controls is presented in Table 1. There were no statistically significant differences among the four groups of subjects with regard to age, education, marital status, rank and background. All subjects in the study were male. Scores on SAS and HRSD of the various groups is given in Table 2. Analysis of variance of the scores of SAS of the four groups shows that anxiety scores differentiates the groups at a statistically significant level ($p < 0.01$). In order to determine the significance of the differences between mean taken in part, the 't' test of significance was used. It was found that all groups were significantly different from each other ($D_{0.05} = 9.32$; $D_{0.01} = 12.31$).

Scores on HRSD of the various groups is given in Table 2. Analysis of variance of the scores on HRSD of the four groups shows that depression differentiates the four groups at a statistically significant level ($p < 0.01$). In order to determine the significance of the differences between means taken in part, the 't' test of significance was used ($D_{0.05} = 2.20$; $D_{0.01} = 2.92$) indicating that patients with duodenal ulcer were significantly more depressed than normal subjects and hospitalised patients. In addition, duodenal ulcer patients were significantly less depressed compared to neurotics.

Discussion

The findings indicate that duodenal ulcer patients are significantly more anxious and depressed as compared to normal subjects and the anxiety and depression in duodenal ulcer patients are not transient. It can further

TABLE 1
Sociodemographic variables.

Sr No	Variables	Normal control	Duodenal ulcer patients	Hospitalised patients	Neurotics	Chi square value	DF	p value
1.	Number	25	25	25	25			
2.	Age in years							
	Mean	34.2	34.2	33.24	34.12	3.29	9	0.90 NS
	Range	22-51	22-51	24-47	20-46			
3.	Marital status							
	Married	22	23	21	19	2.75	3	0.30 NS
	Unmarried	3	2	4	6			
4.	Rank							
	JCOs	2	2	3	1	2.14	6	0.80 NS
	NCOs	8	8	9	6			
	ORs	15	15	13	18			
5.	Background							
	Rural	23	22	23	21	1.12	3	0.70 NS
	Urban	2	3	2	4			
6.	Education							
	0 - 5	5	4	3	5	0.93	6	0.95 NS
	6 - 10	12	13	13	13			
	7 - 11	8	8	9	7			

NS = Not significant.

TABLE 2
Scores on Sinha's anxiety scale (SAS) and Hamilton's rating scale for depression (HRSD).

Groups	No	SAS Scores		HRSD Scores	
		Mean	SD	Mean	SD
Duodenal ulcer patients	25	59.72	9.32	9.60	4.82
Normal controls	25	26.96	5.27	1.56	0.85
Hospitalised patients	25	46.80	8.37	4.32	2.82
Neurotics	25	68.12	7.24	12.36	5.25

ANOVA of SAS Scores : ANOVA of HRSD Scores:
F = 233.21; df = 3.96 p 0.01 F = 3.89; df = 3.96 p 0.01

be inferred that the raised levels of anxiety and depression in duodenal ulcer patients may not be incidental to their diseased state as their level of anxiety and depression is significantly higher than that of the hospitalised patients with non-psychosomatic disorders. Thus emotional disturbances in these ulcer patients may be a personality trait as in the case of neurotics. The lower anxiety and depression level in duodenal ulcer patients as compared to the neurotics could be due to the fact that some of the affects may have been dissipated due to symptom formation. Patients with psychosomatic disorders of the colon are high on neuroticism showing dysthymic characteristics [11]. Anxiety and depression are the chief characteristics of dysthymics and the present findings of high levels of anxiety and depression in duodenal ulcer patients is to be understood as a factor in their personality as in dysthymics. It is therefore possible that the symptom formation in duodenal ulcer may also follow the same pattern as in neurotics [12], only difference being the individual variation in organ vulnerability.

The findings of our study may have therapeutic implications. Anxiolytic therapy is used at times in duodenal ulcer patients for treatment of concomitant anxiety symptoms rather than for direct ulcer management. Conventional H-2 receptor antagonists will heal 80-85% ulcers in 4-6 weeks. Persistence is not usually attributed to psychiatric factors, but there is an increased interest in those patients who respond poorly without other pathologic explanations. Low dose tricyclic antidepressant therapy has recently been found to be very effective in treating peptic ulcer disease and in treating patients who are refractory to conventional H-2 receptor blockade [13,14]. In one study doxepin and cimetidine was found to be very useful [15] while another study [16] reported that the combination of ranitidine with prazepam produced significantly higher endoscopic ulcer healing rate than ranitidine alone (95.6% vs 75%; $p = 0.03$). However whether this beneficial effects

is due to psychological changes or the effect of tricyclic antidepressants on acid secretion remains to be determined.

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