MATERIAL & METHOD
MATERIAL AND METHODS

The study was conducted on patients attending the medical outpatient department of M.L.B. Medical College, Jhansi, during the period from May, 1981 to March, 1982, who complained of one or more of the following dyspeptic symptoms of more than 15 days duration:

1. Abdominal fullness, pressure, pain or discomfort related to meals.
2. Gaseousness - distension, belching, flatulence.
3. Retrosternal heartburn.
4. Specific food intolerance.
5. Diminution/loss of appetite.
6. Nausea/vomiting.
7. Biliousness.
8. Eructations.
9. Altered Bowel habits.
10. Mucus in stool.

All the patients were hospitalised except few who could come for investigations as and when called for.

In every case, a comprehensive history was taken encompassing details of the presenting symptoms, especially its relationship to environmental or psychological factors, significant events in the personal, domestic or occupational spheres and personality characteristics. The patients were
subjected to a thorough clinical examination with the view to identify common gastrointestinal causes of dyspepsia.

Patients whose dyspeptic symptoms could obviously be attributed to extra intestinal organ system were excluded from the study. All the patients were also examined psychiatrically. Details thus acquired were recorded in a preformed schedule (Appendix-I).

The following investigations were carried out in all the cases:

1. Total and differential leucocyte counts.
2. Haemoglobin estimation with Sahli's haemoglobinometer.
3. Erythrocyte sedimentation rate by Wintrobe's method.
4. Urine examination - (a) for presence of albumin and sugar.
   (b) Microscopic examination.
5. Stool examination -
   (a) Naked eye examination - for amount, consistency and colour of stools.
   (b) Microscopic examination for ova and cysts.
   (c) For occult blood.

Following investigations were done as and when indicated on the basis of history and physical examination -
1. Fractional test meal - to detect any hyperacidity or hypochlorhydria.
2. Blood sugar.
4. Serum calcium.
5. Serum amylase.
6. Endoscopy: A. Proctoscopy - to detect any local lesion of rectum and anal canal.  
               B. Sigmoidoscopy - to detect disease of sigmoid colon.
7. Radiological studies:  
               A. Plain X-ray abdomen (A - P view).  
               B. Barium enema with or without air contrast.  
               C. Oral cholecystography.  
               D. Barium meal for stomach and duodenum.  
               E. Barium meal follow through for small intestine and ileocaecal region.  
               F. Hypotonic duodenography with air contrast.  

Other procedures like colonic biopsy and exploratory laparotomy were done as and when required.

Psychological testing

Two psychological questionnaires were administered to every patient and to age and sex matched normal controls.

1. Middlesex Hospital Questionnaire (M.H.Q.) (Appendix-II)

The Hindi version of M.H.Q. (Srivastava and Bhat,
1974) was administered to assess the level of anxiety. The educated patients were asked to mark out the correct answers, while the illiterates were read out the questionnaires for them. The responses were scored for free floating anxiety (FFA), obsessive anxiety (OBS) phobic anxiety (PHO), somatic anxiety (SOM), depressive anxiety (DEP) and hysterical anxiety (HYS). The total score was also calculated.

2. **Amritsar Depressive Inventory (A.D.I.) (Appendix-III)**

This was administered to rate the level of depression. A score less than five was taken as normal, 5-14 denoted anxiety neurosis, 15-21 meant reactive depression, while a score exceeding 21 was taken to suggest endogenous depression (Singh et al, 1974). All the patients were examined by psychiatric consultant to unravel any underlying psychiatric or emotional problem and to assign a psychiatric diagnostic label if any.

After completion of clinical assessment and investigation every patient was seen together by the consultant physician and the consultant psychiatrist so as to arrive at the final diagnosis(es), both physical and psychiatric. The diagnosis was based on the Ninth revision of the International classification of diseases (1975). Based on the above informations the patients were classified into 3 groups for the purpose of comparative analysis:
Group - I

NON ORGANIC DYSPEPSIA

Patients in whom no organic disease could be identified to account for their dyspepsia. They were further classified into following diagnostic groups:

1. Irritable Bowel Syndrome.
2. Dyspepsia associated with definite psychiatric diagnoses:
   A. Hypochondriasis.
   B. Depression.
   C. Hysteria.
   D. Schizophrenia.
   E. Unclassified.
3. Unspecified.

Group - II

ORGANIC DYSPEPSIA

Patients in whom some organic disease was identified which could account for their symptoms.

1. Ulcer dyspepsia - Where an ulcer could be demonstrated radiologically and/or on operation.
2. Ulcer like dyspepsia - Where symptomatotomatology was similar to ulcer dyspepsia but ulcer could not be demonstrated.
3. Other dyspepsia -

A. Amoebiasis with or without reflex hyperacidity.

B. Intestinal tuberculosis.

C. Worm infestations.

D. Miscellaneous - carcinoma head of pancreas, intraabdominal malignancy.

Group - III

Normal age and sex matched controls, who were administered the two psychological questionnaires to establish the norms for psychological scores in this region and to compare them with scores of patients with non organic and organic dyspepsia.

In the end of the study, the data were tabulated, the findings analysed statistically and results discussed in the light of the available relevant literature.