

# THE INCIDENCE OF NON ULCER DYSPEPSIA AND ITS RESPONSE TO TREATMENT

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**Background:** This study was undertaken to identify Non Ulcer Dyspepsia (NUD) in young patients presenting with peptic ulcer like symptoms. Their response to treatment was also determined. **Methods:** 100 patients between the ages of 20-40 of both sexes were included in the study. Investigations done were Chest X-ray Plain Abdominal X-ray, ECG, ESR, LFTs Amylase Abdominal Ultrasound and upper G1 endoscopy. All, patients then received 6-week therapy with Omeprazole and Helicobacter Pylori eradication with Clarithromycin and tinidazole. **Results:** NUD was by far the most common cause (59%) in both the sexes. Response to therapy was unsatisfactory. **Conclusions:** This relatively newly discovered clinical entity should be kept in mind while dealing with patients presenting with refractory dyspeptic symptoms.

## INTRODUCTION

Dyspepsia is one of the most common outpatient symptoms. Patients describe it in a variety of ways like pain, discomfort, bloating, belching, indigestion, heartburn, fullness or simply "gas". Amongst luminal gastrointestinal tract dysfunction peptic ulcer disease and gastritis were the prime suspects till the advent of endoscopy.<sup>1</sup> This of course assumed that other causes like biliary, pancreatic, and metabolic were ruled out. It now, however, appears that non-ulcer dyspepsia is probably the more common diagnosis. The symptoms emerge from increased sensitivity of visceral afferents, delayed gastric emptying and impaired accommodation to food. NUD unfortunately till present remains a diagnosis arrived at by exclusion".

## MATERIALS AND METHODS

100 patients satisfying the inclusion criteria were included in the study. The patients included had Chest X-ray, Plain Abdominal X-ray, ECG, ESR, LFTs

Amylase Abdominal Ultrasound and Upper GI endoscopy. All patients were then given 6-weeks therapy of the Omeprazole and Helicobacter pylori (HP) eradication with Clarithromycin 500 bid and Tinidazole 500 bid.

Inclusion criteria were ages of 20-40 of both sexes presenting with upper abdominal pain and dyspepsia of more than three months' duration.

Exclusion criteria were:

1. Patients whose history was suggestive of IBS.
2. Patients who turned out to have biliary tract or pancreatic disease.
3. Patients on long standing NSAIDs, digoxin, theophylline's and alcohol.
4. Patients with carcinoma stomach.
5. Patients with Gastro-esophageal reflux disease (GERD)

## RESULTS

The results of this study are given in tables 1 and 2.

Table-1: Breakdown of 100 cases according to diagnosis and sex

	Total	DU	GU*	Gastritis*	Normal
Male	56	9	4	10	32
Female	44	5	2	11	27
Total	100	14	6	21	59

\*GU proven benign on histology, \* Gastritis; Endoscopic appearance.

Table-2: Clinical response after 6-week therapy. \*

	Total patients	Symptom free	Moderate Improvement	No Improvement	Percentage not improved
Duodenal ulcer	14	9	3	2	14
Gastric ulcer	6	4	1	1	17
Gastritis	21	7	8	6	29
Normal (NUD)	59	8	16	36	61

\* 6-week therapy with Omeprazole and HP eradication with Clarithromycin 500 bid and Tinidazole 500 bid.

## DISCUSSION

Dyspepsia is a symptom complex characterized by recurring pain or discomfort in the upper abdomen.<sup>1</sup> Dyspeptic patients who have undergone an investigation and where no pathology is identified are labeled as having "non ulcer dyspepsia" (NUD).<sup>3</sup> In our patients NUD was diagnosed on the basis of a compatible history and a normal blood count, ESR, LFTs and serum amylase, abdominal ultrasound and an upper GI endoscopy. Patients with recognised clinical entities causing upper abdominal pain were excluded from the study.

A total of 41 (41%) patients had a demonstrable abnormality on upper gastrointestinal endoscopy (Table-1). The rest are the patients who fall in the category of NUD. As can be seen in Table- 2, these patients did not respond favorably to the standard anti-ulcer treatment with Omeprazole and HP eradication therapy. On the other hand, patients with duodenal ulcer had good results.

Our results roughly correspond to studies carried out abroad. In one Scandinavian study up to 1/3<sup>11</sup> patients with NUD responded to Cimetidine.<sup>3</sup> These however were thought to be people among patients with NUD with symptoms of GERD without any confirmatory objective evidence.

In two Meta analyses Jaakkimainen and colleagues<sup>4</sup> and Laheij *et al*,<sup>5</sup> demonstrated a significant improvement in symptoms in patients with non-ulcer dyspepsia who were treated for their H. pylori infection. However, the better-designed studies tended to find a smaller association. Two recent eradication studies are with negative results<sup>6,7</sup>. It is likely that, at best, there is minimal benefit to eradicating *Helicobacter pylori* in patients with non- ulcer dyspepsia.

Most subjects with non-ulcer dyspepsia appear to have a reduced compliance of the gastric fundus. This causes an abnormal distribution of food in; the stomach after meals as assessed by scintigraphy. Whilst the fundus remains stiff, the food tends to distribute itself in the antrum for longer periods than found in healthy controls. A method for assessing gastric compliance is the use of gastric ultrasound. As the proposed mechanism of NUD

points to a motility disorder it would be logical to expect benefit from prokinetic drugs. A recent Meta-analysis with 16 studies included, patients were given Cisapride and placebo.<sup>8</sup> The dose of Cisapride varied between 15 and 40 mg daily. The reviewer concluded that cisapride is moderately effective in symptom relief over about four weeks in patients given a dose of about 30 mg a day. For every four or five patients treated with cisapride, one will have good and/or excellent symptom relief who would not have benefited with placebo. Cisapride has recently been taken off the market for fears of cardiac arrhythmias in susceptible patients.

Other drugs tried were low dose antidepressants and Dicyclomine with not very encouraging results.

The significance of NUD lies in its relative refractoriness to acid lowering therapy, which works so well in patients with peptic ulcers. It is also to be appreciated that it is a diagnosis, which requires a negative endoscopy.

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