

article

Management Of Non Organic Dyspepsia

□ Ma'ad Midhat ; □□ Fali Al-Obaidi ; □□□ Basam A. Gazala; □□□□ Maithem Hatam

Abstract

Background

This study concern an approach to deal and manage patients who presented with non organic dyspepsia after other causes of upper GIT dyspepsia were excluded as peptic uclear disease, tumors of the upper GIT, hepatobiliary disease, pancreatic disease, or any other organic systemic disease.

Patients and Methods

A prospective study of 100 patients with dyspeptic symptoms done at the Medical City teaching hospital started at Dec. 1997 to July 2000. The study includes 70 females with a mean age of 25-35 years, and 30 males with a mean age of 25-40 years. Each patient was interrogated for a detailed medical history and examined clinically; then an arrangement for ultrasound study, upper GIT endoscopy and biopsby for H. Pylori and by general stool examination, and biochemically with some

other investigations according to the case.

Results

We categorize those patients to four groups according to their symptoms into: reflux like, peptic ulcer like, dysmotility like, and lastly to idiopathic or essential dyspepsia. We consider treatment for each group according to their symptoms and follow up is done to recognize the percentage of patients who respond to their individual medications and its usefulness according to the group.

Conclusion

Dyspepsia is more in Females, psychological evaluation should be considered in management, Endoscopy should be done to suspicious presentation of long duration; gastric acid suppression and anti H. pylori are valuable in treatment.

Key Words: Dyspepsia, non-organic dyspspsia (NOD), Endoscopy.

Introduction

Dyspepsia: is a term commonly used as a collective description for a variety of alimentary symptoms, such as upper abdominal pain or discomfort or other symptoms referable to the proximal gastro intestinal tract such as nausea, vomiting, acidity, early satiety and abdominal distension (bloating)⁽¹⁾. Symptoms may or may not be meal related or exercise related.

Chronic dyspepsia: is a dyspepsia that had been present for three months or longer. Over half the

patients who present with chronic dyspepsia have no evidence of peptic ulceration, other focal lesions, or systemic disease and are diagnosed as having non ulcer (or functional) dyspepsia.

Functional dyspepsia (NUD.NOD): is a heterogenous syndrome with dyspepsia symptoms for at least 3 months that suggest a diagnosis of peptic ulcer despite the absence of an ulcer by endoscopical or barium radiographic studies⁽²⁾. NUD is twice as common as peptic ulcer and may

□ Dr. Ma'ad M. Abdul- Rahman ; Prof. Of surgery, Dept. of surgery ,medical college , University of Baghdad , Baghdad , IRAQ

□□ Dr. Fali Al-Obaidi ; Prof. Of surgery, Dept. of surgery ,medical college , University of Baghdad , Baghdad , IRAQ

□□□ Dr. Basam A. Gazala; Senior Registrar , Dept of surgery , Baghdad Teching Hosp , Baghdad , IRAQ.

□□□□ Dr. Maithem Hatam: Senior Registrar , Dept of surgery , Baghdad Teching Hosp , Baghdad , IRAQ.

affect up to 20-30% of population⁽³⁾.

NUD usually affecting younger age groups less than 40 years old and so the loss of productivity is an important factor⁽⁴⁾. It has been proposed that this entity can be subdivided into a number of symptomatic clusters or grouping that suggest possible underlying pathogenic mechanism⁽⁵⁾. These grouping include: reflux like, dysmotility like, peptic ulcer like, and essential dyspepsia.

The etiology of (N.O.D.) is not established although it's likely a multi-factorial disorder.

Motility abnormalities may be important in a subset of dyspepsia patients but probably do not explain the symptoms in the majority.

Other potential etiological mechanisms, such as increased gastric acid secretion, psychological factors, life event stress and dietary factors have not been established as causes of (N.O.D.).

Management of (N.O.D.) is difficult because its pathogenesis is poorly understood and is confounded because of a high placebo response rate. Until more data are available it seems reasonable that treatment regimes target the clinical groups described above.

Antacids are no more effective than placebo in (NOD) although a subgroup of NOD patients with reflux like or ulcer like symptoms may respond to H2 receptor antagonists. Prokinetic drugs appear to be effective, and may be useful in patients with dysmotility like and reflux like dyspepsia⁽⁵⁾

Patients and method

This is a prospective study of (100) selected samples of patients referred to the upper gastrointestinal endoscopy units during the period from December 1997 to July 2000 in Baghdad teaching hospital. Those patients were referred from outpatient clinic, medical and surgical units. Those patients were complaining from persistent dyspeptic symptoms for more than 3 months.

Patients with other endoscopical abnormalities

teaching hospital. Those patients were referred from outpatient clinic, medical and surgical units. Those patients were complaining from persistent dyspeptic symptoms for more than 3 months.

Patients with other endoscopical abnormalities were excluded, such as (esophagitis, esophageal varices, hiatus hernia, ulcers, and tumors). Also patients with disease known to cause dyspeptic symptoms were excluded, as (gall bladder diseases, liver disease, pancreatitis, and uremia). Also pregnant women were excluded, and patients with history of gastrointestinal operations, except those with appendicetomy. Patients on H2 receptor antagonist therapy, requested to stop the drug 2 weeks before the endoscopy, but they were allowed to continue to use antacids.

Upper gastrointestinal endoscopy was performed under local lignocaine spray anesthesia by (Olympus GIF Type Q-20) endoscopic system with occasional use of Diazepam injection or Hyoscine injection (Buscopan).

Antral and duodenal biopsies were taken to detect the presence of *H. pylori*. The specimen is preserved in 10% Formaline for microscopic examination. Giemsa stain was used for the detection of *H. pylori*. Follow up of those patients is usually done after a period of 4 weeks treatment for each group and the response to treatment is recorded as complete or partial relief of their original symptoms.

Results:

Hundred patients were included in our study, 70 female and 30 males, with female to male ratio of 2:1. Age and sex distribution is shown in Fig. No. (1), which shows that the maximum age incidence is below the age of 50 years.

Blood group and RH distribution are shown in table No. (1), which concluded that:

All patients were studied for predisposing factors for

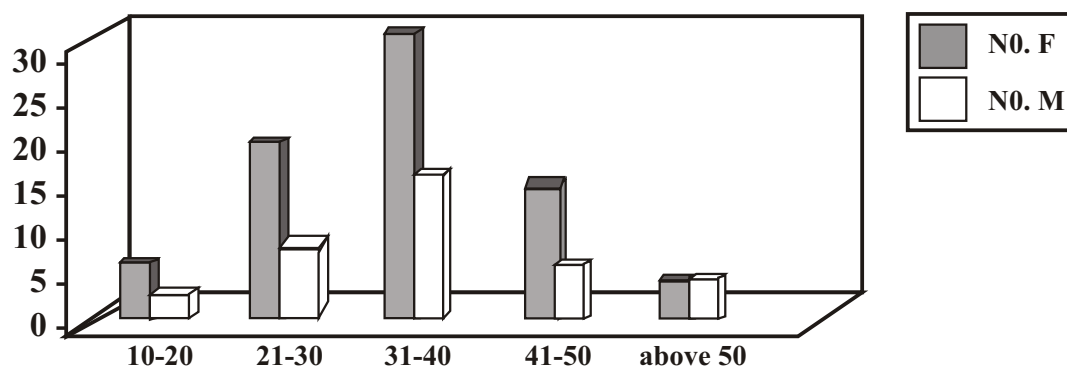


Figure No (1)
Age and sex distribution

Blood group and RH distribution are shown in table No. (1), which concluded that:

Table (1)
Blood group distribution

B. group	+ve	-ve	Total No. of patients
0	43	4	47
B	27	1	28
A	17	2	19
AB	6	0	6

All patients were studied for predisposing factors for dyspepsia as shown in table (2), from which we observe that:

1. The highest age incidence among male patients was between (20-40) years (22%); and between (20-50) years in females (64%).
2. 70 % of patients are females and (30%) are males in respect to sex distribution of N.O.D.
3. 76 % consumed salty diet, versus (7%) consumed spicy diet.
4. 28% are smokers with a range of half to two packets/day with chronicity of smoking between 5 years to 20 years (18% males and 10 %

Between 5 years to 20 years (18% males and 10 % females).

5. 12% are alcohol consumer (little amount of light drinks); all of them are males.
6. 20% use NSAID for analgesia (single drug occasionally); (8% are males and 12% are females). 4% of all patients take contraceptive pills.
7. 21% had positive family history (13% females and 8% males).
8. 75% of patients had a previous psychological history.

Regarding other social factors that may have an

Table (2)
Predisposing factors of dyspepsia

Predisposing factors		%
Age incidence	M 20-40 years	22%
	F 20-50 years	64%
Sex distribution	M	30%
	F	70%
Types of diet	Salty	76%
	Spicy	7%
Smoking habit		28%
Alcohol consumption		12%
NSAID use		20 %
CCP use		4 %
Family history		21 %
Psych o logic factors		75%

Regarding other social factors that may have an etiological role for N.O.D., as it appears in table (3).

Table (3)
Other etiological factors

Marital status	Married	74%
	Single	26%
Occupation	House wives	20%
	Students	18%
	Stable job	30%
	No stable job	32%
Past medical and surgical history including (Appendectomy)		8%

Regarding the psychological history and its incidence in non organic dyspepsia patients is as follow as shown in table (4).

Table(4)
Incidence of psychological problems among patients with N.O.D

Main psychological problems	% of total No.		Total
	M	F	
Anxiety	4%	18%	22%
Depression	13%	27%	40%
Conversion disorder (hysteria)	5%	8%	13%
			75%

Those patients are divided into four groups according to their clinical presentation (symptoms), these groups reflect a number of symptomatic clusters that suggest a possible underlying pathogenic mechanisms; these grouping include as shown in table (5):

- Group 1: Gastro esophageal reflux like N.O.D. in 38 female patients (38%); and 20 male patients (20%).

patients (20%).

- Group 2: Peptic ulcer like N.O.D. in 20 females (20%); and 2 males (2%).
- Group 3: Dysmotility like N.O.D. in 10 females (10%); and 8 males (8%).
- Group 4: Essential or idiopathic dyspepsia in 2 females (2%); and 0 males.

Table (5)
The incidence of different types of N.O.D.

Symptomatic Group	Sex distribution	No. of patients	% of total number	Total
Group 1	F	38	38%	58%
	M	20	20%	
Group 2	F	20	20%	22%
	M	2	2%	
Group 3	F	10	10%	18%
	M	8	8%	
Group 4	F	2	2%	2%
	M	0	0%	
Total No. of patients		100 patients	Total 100%	

The most common symptoms in each group of patients and in all patients with N.O.D. is shown in table (6). The presence of H. pylori in biopsy specimens are shown in table (7)

Table (6)
Clinical presentation of patients with N.O.D.

Symptom	Group (1)	Group (2)	Group(3)	Group (4)	Total N0. Of patients and % of incidence
1. Heartburn	58	16	-	-	74%
2. Upper abdominal or epigastric discomfort	37	22	10	-	69%
3. Hyperacidity	44	18	5	-	67%
4. Reflux by lying down relieved by sitting or erect position	52	-	-	-	52%
5. Nausea	22	20	7	-	49%
6. Acid brash	36	6	-	-	42%
7. Abdominal distension	-	10	16	-	26%
8. Migratory abdominal pain	6	-	13	-	19%
9. Repeated belching	8	-	9	2	19%
10. Night pain relieved by milk or antacid	-	18	-	-	18%
11. Dysphagia	-	-	17	-	17%
12. Hunger pain	-	13	-	-	13%
13. Retrosternal pain	12	-	-	-	12%
14. Vomiting	-	7	-	-	7%
15. Change of bowel habit	-	-	3	-	3%
16. Flatulence	-	-	3	-	3%
17. Dry swallowing	-	-	-	2	2%
18. Gulping	-	-	-	2	2%

The presence of *H. pylori* in biopsy specimens are shown in table (7)

Table (7)
Incidence of *H. pylori* among patients with N.O.D..

Groups	Incidence of infection	Percentage from total No. of patients
Group 1	28	28%
Group 2	8	8 %
Group 3	5	5%
Group 4	1	1%
Total No.	42 Patients	42%

Treatment trials is initiated for 4 weeks for each drug to all groups consequentially and the response is determined by partial or complete relief symptoms and the choice of drugs lie between:

1. Prokinetic agents (Metoclopramide 5-10 mg x 3; Cisapride 5-10 mg x 3).
2. Antacids.
3. H₂ - receptor blockers (Cimetedine 400 mg x 2;

Famotidine 20 mg x2; Ranitidine 150 mg x 2).

4. Proton pump inhibitors (Omeprazole 20 mg x 2; or Lansoprazole 15 mg x 2).
5. Anti *H. pylori* treatment (Amoxil + Metronidazole or Clarithromycin + Metronidazole). The results of response of each group to their medication are shown in table (8).

Discussion

Table (8)
Drug treatment/or non organic dyspepoa.

Drugs	Group(1)	Group(2)	Group(3)	Group(4)	Total % of responders
1. Antacids	11	8	1	0	20%
2. H ₂ receptor blockers	49	17	9	1	76%
3. Prokinetic agents	42	12	18	0	72%
4. Proton pump inhibitors	12	3	2	0	17 %
5. Anti <i>H. pylori</i> treatment	22	6	3	2	33 %

Discussion

- Not every patient complaining from GIT symptoms should be exposed to endoscopy, the age, and sex of patient should be considered in deciding whether to expose the patient to endoscopy or not. (So in 10 patients above 50 years who present for the first time with dyspepsia especially males with alarm features as weight loss we must do immediate endoscopy)^(4,5)

loss we must do immediate endoscopy)^(4,5)

- N.O.D. is more common in females than in males.
- The majority of patients with N.O.D presented with heart burn⁽⁶⁾
- Endoscopy is a valuable service to primary care and it's the diagnostic gold standard, the result of which greatly enhances the diagnostic accuracy in dyspeptic patients entering the primary care, and

and may have a positive influence on the prognosis of N.O.D. Patients.^(4,5,7,8)

- Certain symptoms may be of value in diagnosis the cause of dyspepsia.⁽⁶⁾
- In patients with N.O.D. who present for investigation are more likely to be persistently neurotic, anxious, and depressed than dyspepsia free controls.^(6,9)
- Suppression of gastric acid secretion is of clinical value in N.O.D. patients especially in those suffering from epigastric pain, heart burn, acid regurgitation {acid related symptoms (group 1&2)}, therefore a treatment with H2 blockers up to 4 weeks is recommended as a practical therapeutic alternative in this syndrome.^(4,5,10)

Anti H.pylori treatment is a safe and cost effective in the initial therapy of patients with N.O.D.⁽⁵⁾

Recommendation

Every patient complaining of dyspepsia for more than 3 months should be submitted for endoscopy and for biopsy to find the underlying cause, if other causes of dyspepsia were excluded.

References

1. Boren C. H. and Way L. W.: Alkaline reflux gastritis; A reevaluation. Am. J. Surg 140:40, 1980.
2. Bruckner B., Pink V. and Hient P.: Assessment of duodenogastric reflux with hepatobiliary functional scintigraphy. Zentral bichir. 114(7); 453-61 J989.
3. Christopher W.: The stomach and duodenum. Bailey and Love's short practice of surgery 22nd edition: 669-700, 1995.
4. Chunlertrith K., Sukeepaisarnjareon W. and Mairiang E.: The study of discriminant values of dyspepsia symptoms for identifying the etiology of dyspepsia. J. Med. Assoc. 75(6):341-9, 1992 Jun.
5. Drozd K. E. and Marcinowska S.E.: Biochemical indicators of the nutritional status of the body in various disease of the digestive system. Wiad. Lek. 45(13-14): 483-5, 1992 Jul.
6. Kang J.Y., Tay H. and Guan R.: Chronic upper abdominal pain: Site and radiation in variation structural and functional disorders and the effects of various foods. Gut 33(6): 743-8, 1992 Jun.
7. Mellstorm D. and Svanborg A.: Tobacco smoking- a major cause of sex difference in health. Compr. Gemtol A.1 (1): 34-9/1987 Feb.
8. Tally N. J., McNeil D and Piper D. W.: Discriminant value of dyspepsia symptoms: a study of the clinical presentation of 221 patients with dyspepsia of unknown case, peptic ulceration, and cholelithiasis. Gut 28 (1): 40-6, 1987 Jan.
9. Tally N.J. and piper D.W.: Comparison of the clinical features and illness behavior of patients presenting with dyspepsia of unknown cause (essential dyspepsia) and organic disease. Aust. N.Z.J. Mod 16(3): 352-9, 1986 Jun.
10. Vizir A. D., Pyshkin SA., Sapa A.I. and Bobrova O.N.: The early rehabilitation of patients operated on for peptic and cholelithiasis at Mirgord health resort Vrach. Delo. (12): 39-43, 1991 Dec.