Current Practice

DISEASE OF THE DIGESTIVE SYSTEM

Dyspepsia

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In spite of all that has been written about dyspepsia the condition remains ill-defined. Dyspepsia and indigestion are commonly and justifiably used as synonyms, and in the *Shorter Oxford English Dictionary* the meaning of dyspepsia is given as "Difficulty or derangement of digestion; indigestion." In practice most of us use these two words more to describe a group of clinical syndromes than a physical or functional state or derangement.

History-taking is helped by getting the patient to define his terms so that he and the doctor are talking about the same thing. By "stomach" most patients mean abdomen. Pain and discomfort, as felt by the patient, need to be carefully assessed. Patients sometimes use the word "vomiting" for acid regurgitation, or even merely retching. "Wind" to them may mean excessive belching or passing of flatus, or feelings of abdominal distension or discomfort.

Patients do not always recognize that they are suffering from indigestion; others use this term to describe symptoms which obviously have nothing to do with the alimentary tract. To establish the relationship, if any, of the patient's symptoms to his intake of food it may be necessary to construct a timetable of his day. The symptom-time relationships which come to light are sometimes news to the patient.

Assessment of Clinical Manifestations

Some patients with a peptic ulcer causing actual pain will give a clear succinct history leaving the diagnosis hardly in doubt. Even then there are pitfalls: the radiologist may fail to find an ulcer, or the patient may be suffering from other important physical, psychological, or social disease. Quite a number of cases need time and a sense of leisure for the history-taking that is not always immediately available in a busy out-patients.

It is good practice to try to assess whether a patient has pain or not. Though organic disease may cause no more than discomfort, it is unwise, without thorough investigation, to discount such disease when the patient experiences pain. It may be difficult to appraise the patient's chief symptom. "Terrific pain" may turn out in the end to be merely discomfort. Much will depend on the severity of the chief symptom; and on the patient's pain sensibility, his state of apprehension, and even his intelligence. Most patients understand that pain arises when something is actually hurting them, and that otherwise it is fair to speak of discomfort only. But some patients cannot categorize their abdominal sensations in this way.

A wide variety of epithets are used to describe the pain (or discomfort) of peptic ulcer, but about 7% of patients with dyspepsia are unable to describe it. In a recent survey¹ we found that only one in six patients with gastric or duodenal

ulcer complained of gnawing pain, usually thought of as common in these conditions, but that half of these patients had either gnawing or aching pain. We found that in non-ulcer dyspepsia gnawing pain was much less frequent and a feeling of distension twice as frequent as in peptic ulcer.

Some people believe that they cannot digest certain foods, often either on inadequate evidence or merely because a doctor has told them to stop eating such food. Nevertheless, fried foods upset about 50% of patients with non-ulcer dyspepsia,² but fewer (about 40%) of patients with peptic ulcer. Many patients with gall stones or chronic cholecystitis can eat butter with impunity, though cooked fats upset them.

Wind and flatulence are symptoms often complained of by dyspeptic patients. They suggest biliary disease but may occur in about half the patients with peptic ulcer and non-ulcer dyspepsia, and not infrequently accompany small intestinal disease and even heart disease; so that assessment of their clinical relevance is difficult. Nausea may occur in nearly half the patients with either peptic ulcer or non-ulcer dyspepsia, but vomiting, which used to be thought rare in uncomplicated peptic ulcer, may be seen in a quarter to one-third of such patients. Persistent vomiting may occur in patients with gall stones, duodenal obstruction, or gastric carcinoma, or as a hysterical symptom. A good appetite is commoner in duodenal ulcer than gastric ulcer, and is uncommon in gastric carcinoma.

Sometimes a dyspeptic patient loses weight. When the history is short, particularly when there is anorexia and atypical pain and the patient is a middle-aged man, the possibility of carcinoma of the stomach springs to mind. But such patients may be suffering merely from anxiety, perhaps inflamed by a family history of cancer. The loss of weight is due mainly to deficient food intake: the clue lies in obtaining from the patient other symptoms of anxiety, perhaps among them the story that although he feels hungry before a meal he feels full as soon as he starts to eat it.

Changes in Symptoms

When, after a long time, new and more severe symptoms appear it is wise to redouble the search for an organic disorder, which may prove difficult to find.

Many years ago I saw a man of 43 who for 18 years had had intermittent heartburn, flatulence, and epigastric discomfort $\frac{1}{2}$ –1½ hours after eating. Alkalis relieved him. For one month he had had new symptoms—nausea, and persistent lower abdominal pain unrelieved by alkalis. Full investigation, including laparotomy, failed to reveal a cause for any of his symptoms. Later he was admitted to another surgical ward as an emergency with severe pain. A registrar, nonplussed by the case, told the patient his symptoms were caused by mental illness. The patient was angry and discharged himself. Later still, at another hospital, secondary carcinoma was found in a cervical gland, and a small seminoma was

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discovered. The patient had lived in a house overlooking the garage where I kept my car and his widow used to come out and talk about suing the surgeon who had misdiagnosed her husband's case. Fortunately she did not do so.

It is essential for the patient to show the site of pain or discomfort when stripped. The position indicated with the clothes on is frequently misleading. If the unclothed patient with epigastric pain can "put one finger on it," indicating its localized nature, "it" is more likely than not to be due to a peptic ulcer.

Certain points in the assessment of the case will have a bearing on the treatment advised—the severity and duration of symptoms; the patient's pain sensibility (difficult to measure); the time his symptoms have kept him off work; the number of cigarettes he smokes per day; his mode of life; and his work and how he copes with it.

Diagnosis

The physical findings in most forms of dyspepsia are scanty, and for prolonged periods they may be absent. It is this, combined with the overlap of symptoms in gastric ulcer, duodenal ulcer, and non-ulcer dyspepsia, that has so far made it impossible in the majority of patients, even with computer-analysis of symptoms, to establish the diagnosis exclusively by clinical means. In about a fifth of patients with peptic ulcer the history is so atypical that it may not at first even suggest that diagnosis.³ Once it is decided that the patient has dyspepsia a barium meal examination should be performed. This will not give the diagnosis in every case, for a small number of peptic ulcers and gastric carcinomas will be missed. Gastroscopy or the use of the gastro-camera and even laparotomy may be required to make the diagnosis. In the case of patients with long histories who have been investigated in different hospitals one should avoid being unduly influenced by previous conceptions about the case, although examination of others' findings is naturally helpful. If appropriate investigation fails to reveal the diagnosis the record must be gone over again, if necessary at an extended consultation.

There is some evidence¹ that the symptom pattern in non-ulcer dyspepsia may be more helpful diagnostically than that in gastric or duodenal ulcer.

During the last 20 years hiatus hernia and its associated oesophageal reflux has become recognized as a common cause of dyspepsia. Unfortunately radiological demonstration of hernia, reflux, or both is often difficult. The condition should be suspect whenever there is complaint of heartburn and acid regurgitation in association with epigastric pain, particularly when they are influenced by posture (including lying down). Difficulties arise when peptic ulcer and hiatus hernia, both common conditions, are present in the same subject. Heartburn is probably commoner in a patient with a hiatus hernia who also has a normal mucosa or a duodenal ulcer than in one with atrophic gastritis associated with reduced gastric acidity.

Dyspepsia affects many people in whom no physical disorder can be found to explain it. Thorough search should be made for nervous causes, and this involves unhurriedly talking with the patient. The physician must appear to be interested in, and to understand, the patient's problems. Sometimes the experienced physician can sort these out, and offer adequate advice, at one consultation. Indeed, negative findings on examination and investigation may be all the patient needs for reassurance and the loss of his symptoms, particularly when there is unjustified cancerphobia. But it may be necessary to set aside adequate time by making another appointment. The medical social worker or dietitian may give valuable assistance in some of these patients, but for the most part they are the responsibility of the physician. Only occasionally will they need to be referred to a psychiatrist. Aetiological relationships

are not made less obscure by the finding, in our previously quoted survey, that worries occupying patients' minds for a large part of their waking hours beset as many patients with peptic ulcer as with non-ulcer dyspepsia. About three-quarters of all these patients related their dyspepsia to their worries.

The question of whether gastritis can cause dyspeptic symptoms is still unresolved. We have found some evidence¹ that idiopathic chronic atrophic gastritis may cause dyspepsia in some patients, but little to support the suggestion⁴ that gastritis can cause a specific dyspepsia.

Other Alimentary Causes of Dyspepsia

Disease of the biliary tract frequently causes indigestion. Gall stones or chronic cholecystitis may cause pain or discomfort in the epigastrium or right hypochondrium, and, as in gastric ulcer, duodenal ulcer, and gastritis, pain may also be felt in the back. There is usually associated flatulence and often vomiting. With gall stones the pain may be severe and prolonged and is not a true colic; "biliary colic" is a misnomer for this pain. The symptoms of carcinoma of the gall bladder, bile duct, or ampulla of Vater are usually more insidious. Jaundice is likely to appear at some stage with all disorders affecting the biliary tract; unfortunately in carcinoma it is not infrequently a late sign.

Any condition which interferes with the ability of the small or large bowel to pass food residues onward may give rise to flatulent dyspepsia and even pain after eating. Such disorders include Crohn's disease and other forms of obstruction of the small intestine, carcinoma of the colon, and ischaemic disease of the intestine. The use of new techniques for measuring intraluminal pressures in the large bowel⁵ has shown that some patients with unexplained abdominal pain or discomfort occurring soon after meals have irregular and increased postprandial motility of the colon.⁷ These patients are often constipated and have what used to be termed "spastic colon," or "irritable colon." In the light of new knowledge their condition is better referred to as "functional colon disorder." Though our understanding of this condition has increased, treatment remains rather unsatisfactory.

A high serum calcium level is associated with anorexia, nausea, vomiting, abdominal discomfort, and hyperchlorhydria. Hyperparathyroidism not infrequently causes dyspepsia, and many patients with it develop duodenal ulcers.

Other, less common, causes of indigestion are intestinal worms (especially giardiasis), and hypertrophic gastritis.⁸ When dyspepsia is associated with weight loss, anaemia, hypoalbuminaemia and oedema carcinoma of the stomach or hypertrophic gastritis (Menetrier's disease) should be considered. Gastrectomy will cure the oedema in either case, for it is due to protein-losing gastropathy.

Duodenal diverticula are believed seldom to cause symptoms unless very large. Duodenitis is still a condition of unknown clinical and pathological importance. Few people now believe that dyspepsia is caused by chronic appendicitis.

Drugs

At a time when iatrogenic disease is on the increase it is well to remember that aspirin, corticosteroids, phenylbutazone, indomethacin, potassium chloride, ammonium chloride, and ferrous salts are commonly used drugs that, in the form of tablets, may cause dyspepsia (and worse) in susceptible individuals. Symptoms are less likely if these substances are taken a few minutes before a meal, which suggests that some of them cause dyspepsia by the production of a high local concentration of soluble salt or drug; if this is so it conflicts with currently held ideas about the insensibility of the gastric mucosa.

Non-alimentary Causes of Dyspepsia

Renal Disease.—Patients with renal disease are not infrequently sent first to a gastroenterologist. Renal infection or stone, or hydronephrosis, may be missed when the patient presents with dyspepsia. Pyelonephritis may of course occur in a patient with a duodenal ulcer or some other cause of dyspepsia.

Anaemia.—Patients with severe untreated Addisonian pernicious anaemia, or hypochromic anaemia, often suffer from indigestion, which always disappears, if there is no other cause for it, when their anaemia is cured.

Heart Disease.—Vague dyspepsia is associated in some patients with ischaemic heart disease (sensations of "wind round the heart," abdominal flatulence and aerophagy), or congestive heart failure (pain over the congested liver, and anorexia and possibly discomfort from a congested stomach). Diagnosis is especially difficult when, as is not rare, heart disease and hiatus hernia occur together in the same patient. The perfusion of hydrochloric acid through the oesophagus has been found^{9,10} to be a reliable test for differentiating oesophageal from cardiac ischaemic pain.

Other Conditions.—Patients with anxiety and/or depression often develop dyspepsia. It is usually not very suggestive of physical disease but often needs investigating, if only as part of the treatment of the nervous condition.

Uraemia causes anorexia and sometimes indigestion. "Fibrositis" of the abdominal wall, and a small epigastric midline hernia can also cause much confusion in the diagnosis of dyspepsia.

Accounts of dyspepsia commonly refer to a long list of other aetiological factors. In the light of present knowledge it is questionable whether, for example, allergy, unhygienic eating

habits, or an irregular mode of life (whatever that may mean) should be seriously considered as causes.¹¹

Tertiary syphilis has become rare and gastric crises now seldom trap the unwary into a diagnosis of peptic ulcer. If pulmonary tuberculosis ever did cause indigestion it was probably through associated asthenia, much as it is presumably caused in patients with untreated anaemia.

The relationship of indigestion to a variety of organic and nervous conditions has been interestingly and amusingly discussed by Alvarez.¹² Accounts of dyspepsia commonly list numerous causes of "functional" indigestion. It is tempting to speculate about the real relationship, for example, of physical fatigue, frustration, and anger with dyspepsia. Sometimes such states of mind or body must be coincidental; sometimes perhaps they and the dyspepsia have a common cause. The anxious, depressed, obsessional dyspeptic, whose over-activity is a substitute for peace of mind, is like those whose chief characteristics are their power of sustained unthinking activity, and their lack of curiosity about their destinations.¹³ Does this provide a clue about aetiology and therapy for some types of dyspepsia?

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MEDICINE TODAY

Management of Rheumatoid Arthritis

"Medicine Today" is the television series for doctors produced by the B.B.C. Advice on the preparation of the programme is given by the Association for the Study of Medical Education.

The programme on B.B.C. 2 on 10 October was on the subject of rheumatoid arthritis. Printed below is an article prepared with the help of expert contributors to complement the television programme, which will be repeated on B.B.C. 1 on 18 October at about 11.20 p.m.

Anyone unfortunate enough to acquire rheumatoid arthritis should be given as intelligent an understanding of the disease as possible. Ten minutes of conversation can lay the foundation of many years' effective care. There are many aspects of the disease which the patient should clearly grasp from the beginning—what is going on in the joints and what are the principles of treatment, together with the facts that inflamed synovia and erosions can heal, and that in most people the disease, even if it remains active over a long period, need not progress to serious incapacity. This last piece of reassurance is particularly important after a depressing visit to a hospital outpatient department, where the most severe forms of the disease are displayed. Yet it sometimes happens that all this gets left out; the general practitioner may have obtained a consultant opinion, and each has left the job of explaining things to the other. It is quite certain that there will be a good deal of advice from elsewhere. Friends, acquaintances, books, and women's magazines, acting from one motive or another, all add their quota of misinformation, and it is

as well for the doctor to get in first. However, not all the books that have been written for patients are bad, and a few are quite useful, one of the best and simplest being *Rheumatoid Arthritis*, a handbook for patients published by the Arthritis and Rheumatism Council.*

Among the questions many patients ask are those relating to the effect of weather and diet, the value of various irregular forms of treatment (a newspaper cutting is usually produced at this stage), and the place of rest and exercise in the management of the disease. There is little doubt that symptoms in certain patients are exacerbated by weather conditions. Most dislike cold and damp, but a few find hot weather trying. Rheumatoid arthritis, however, occurs in all parts of the world, and there is no reason to suppose that climatic factors have any influence on the progress of the disease. Similarly, diet has no specific effect. Some patients with advanced disease may be unable to purchase or prepare their meals properly. A regimen of cups of tea and bread-and-butter will contribute towards iron deficiency and avitaminosis, so that where necessary arrangements must be made for proper meals, with supplementary vitamins and iron. With regard to "fringe" treatments, one can only sympathize with the desire to turn to any source of possible cure, but a firm hand sometimes has to be taken with foolish or expensive nonsense.

* Obtainable free by doctors only from the Secretary, Arthritis and Rheumatism Council, Faraday House, 8-10 Charing Cross Road, W.C.2.