FATIGUE DYSPEPSIA.

BY

GUTHRIE RANKIN, M.D., F.R.C.P.,

PHYSICIAN TO THE DREADNOUGHT AND ROYAL WATERLOO HOSPITALS.

It is almost necessary to offer an apology for introducing into the mass of literature in connexion with digestive disturbances any new element that may serve to increase the complexity of a subject already rendered sufficiently difficult by confusing and overlapping classification no less than by perplexing etiological considerations and a wilderness of suggestions for treatment both prophylactic and curative.

The question of food and its comfortable assimilation is one of universal interest. In order to live we must all eat and drink, and to live comfortably and work well it is essential that the physiological and chemical processes by which alimentation is maintained should be carried out efficiently and without any subjective knowledge of the unceasing efforts by which Nature keeps the balance true between bodily income and expenditure. The quicker pace at which life is now spent, the increasing demand upon energy-output to meet the requirements of a more bustling age, the restless ambition for greater prosperity, the increasing variety in foods, and the growing fashion of more luxurious elaboration in meals, are some of the factors that are insensibly compelling our digestive organs to accommodate themselves to a new order of things, and to rise to the occasion of a changing environment for which the march of events is inevitably responsible.

It cannot be doubted that in this process of adaptation to the requirements of a higher civilization the greater part of the strain imposed by present-day life falls upon the nervous system, and therefore it is not surprising to find that in the relationship of that system to the digestive organs new conditions are becoming established which, if not responsible for any actual change in anatomical fact or physiological process, are yet bringing about a functional response to altered demands which may be held responsible for a type of digestive disturbance formerly either unknown or so occasional in its occurrence as to require no separate classification.

We are familiar with the usual types of dyspepsia which declare themselves by discomforts directly related to the ingestion of food. They are conveniently classified as "acid," "atonic," or "fermentative," according to their prevailing symptoms, and are sufficiently differentiated from one another to justify individual description and to call for separate treatment. The causes upon which these varieties of dyspepsia depend are many—organic disease, faulty chemico-biological processes, unwholesome or excessive food, and unwise or badly regulated habits of life, are among the etiological factors which account for a large majority of cases. But in the variety of dyspepsia to which, in this paper, I desire to call attention, there is one additional and foundational cause met with in every case—namely, an irritable or exhausted state of the nervous system, the result of overstrain. It is essentially a dyspepsia sequential to wear-and-tear, but it would seem to be more closely associated with work whose nature makes excessive demands upon the central nervous system than with that which entails prolonged and exhausting physical effort. Its victims, therefore, are to be found almost exclusively among that section of the community whose labours are intellectual or originative rather than among those who earn their daily bread by the sweat of their brow. Further, it is met with among yet another class of men who are not hard workers in any sense of the term, but who, being affluent and therefore removed from any necessity for active effort, are free-livers, and are also, either from inheritance or acquisition, worriers. In their case the nervous system becomes exhausted from passive toxic influences almost more readily than from the over-active objective functioning common in those who are always working at high pressure. Under both conditions a general neurasthenic state is engendered which, under the guidance of unexplainable tendencies, somehow concentrates in a certain number of persons the full force of a depraved nervous energy on the processes of digestion. When once this gastric neurosis is established, a vicious circle is

readily created whereby the toxicæmia consequent upon gastric unrighteousness poisons the nervous system, which, in its turn, promotes a progressive increase of the digestive disturbance. Sooner or later the general nutrition begins to suffer, and the discomforts of an abiding dyspepsia, with its accompanying neurasthenic miseries, are seriously accentuated by loss of weight, sleeplessness, mental depression, and asthenia, all combining to make concentrated work impossible, and to render life a veritable burden.

ETIOLOGY AND SYMPTOMS.

The essential etiological factor in fatigue dyspepsia is a depraved innervation of the gastro-intestinal tract. The disorder therefore occurs either in persons born with a "shoddy" nervous system, or in those who have called upon a normal nervous system for efforts greater than it has been able to overtake. The end is the same in both instances—a breakdown, more or less complete, of nerve stability—with the incidence falling in the first instance and for the most part on the digestive apparatus. Every case of fatigue dyspepsia is accompanied by the same underlying phenomena of neurasthenia—loss of weight, dream-disturbed and broken sleep, capricious appetite, a constant sense of physical fatigue, failing powers of mental concentration, loss of memory, irritability, introspective uncertainty, depression of spirits, restlessness, and a firmly-established conviction that the world is "out of joint." These landmarks of the neurasthenic state stand out with greater or less prominence, and hall-mark, as it were, the type of dyspepsia.

The leading features of the dyspeptic element in the clinical picture may be summarized as follows: The appetite is not necessarily seriously impaired, but the patient becomes suspicious of one thing after another in his daily dietary, and cuts it out of his menu in the hope thereby of finding relief to the miserable discomfort which he comes to realize will inevitably succeed every meal. This discomfort is not experienced immediately, but declares itself from two to four hours after food by a gnawing and burning sensation in the epigastrium, gradually succeeded by a feeling of oppressive distension, with a commanding desire to find relief in constantly repeated eructations, or even actual vomiting. These efforts are at first accompanied by an excessive flow of saliva, gradually replaced by acid and acrid regurgitations of fluid from the stomach. The sufferer soon comes to know that temporary relief is obtained from sodium bicarbonate or soda-mint lozenges, and further discovers in time that the taking of more food gives him immediate, though temporary, immunity from his trouble. He is often aroused from sleep in the early hours of the morning with all the symptoms referable to his stomach in full activity, and so familiar does he become with the relief afforded by food of any kind that he adopts the plan of having biscuits by his bedside, in order to secure such comfort as will enable him to go to sleep again. Sickiness is unusual except in advanced cases where dilatation of the stomach has taken place, but relief is sometimes sought by a voluntary emesis. As a rule, the bowels are obstinately confined, but they may be irregular in their action, with a liability to diarrhoeal evacuations from time to time. This is specially apt to happen when there are colonic complications. The subjective sensation of pain is accompanied by tenderness over the stomach region, and this may be so acute as to make even the pressure of the clothing uncomfortable. The ultimate effect on the general nutrition is not so marked as might be expected, and when assimilation fails, as it does eventually, the emaciation would seem to be due much more to a progressive general neurasthenia than to inanition from want of food. Though the patient fears his food because of the subsequent discomfort, he takes it well until he reaches the stage where he tries experimentally to cure himself by abstaining from one article of dietary after another because he believes this, that, or the other to be responsible for the pain. Sooner or later the participation of his nervous system in the disturbance of his health becomes such a predominating feature of his condition that the digestive phenomena, though the pivot round which all the other symptoms fluctuate, come to occupy a subsidiary place. The patient is now mentally wretched, and so obsessed with the increasing evidences of failing health, that he gets driven

from all successful participation in the duties and circumstances of his everyday life. All else is subordinated to anxieties about his health, and his fears of cancer or some other equally serious explanation of his symptoms are fed by the constantly recurring pain at his epigastrium, with its accompanying sense of over-distension and concurrent waterbrash or heartburn. The acidity is often so distressing as to lead to an excessive and unwise use of strong solutions of sodium bicarbonate or other alkali.

When a patient suffering from such a series of subjective symptoms is examined physically, he presents all the phenomena already adverted to as indicative of the neurasthenic state. In uncomplicated cases there are no evidences of disease outside the alimentary tract, but when this comes under investigation it will be found invariably that a definite group of signs accompany the subjective symptoms which have fixed themselves upon the patient's attention. There is well-marked localized tenderness on pressure over the right region of the epigastrium, intensified by causing the patient to take a deep inspiration, and accompanied by rigidity of the upper segment of the right rectus muscle. The stomach is flabby, or even in severe cases dilated, and splashing sounds can often be elicited on succussion. In many cases the colon is distended, and sometimes faecal accumulations can be discovered, especially in the ileo-caecal region or along the course of the sigmoid flexure. Collateral physical signs are frequent, and some of the more prominent are worthy of mention. Thus, in patients who are thin, the right, or more rarely the left, kidney is palpable, and may be abnormally loose. The urine frequently contains phosphates in excess, and in a fair proportion of cases the presence of indican can be demonstrated. The skin is inelastic and greasy; the complexion is muddy, and may be eloquently expressive of a toxæmic state of the blood. The teeth are often found to have been inadequately cared for, and the gums may show signs of a more or less pronounced pyorrhoea. Evidences of vasomotor instability are prominent and manifest themselves in cold and clammy hands and feet, waves of heat or cold radiating over the whole body, chilly perspirations, periodic attacks of polyuria, vertiginous sensations on sudden movement or change of position, and unexpected diarrhoea with offensive stools interrupting a chronic condition of obstinate constipation.

From a long series of cases illustrative of this condition which I have collected, the following may be quoted as typical examples:

CASE I.

A spare, active man, 61 years of age; a journalist. When a boy, over-indulged in games, and all his life had been over-strenuous. Had suffered from a feeble digestion for many years. Often experienced nausea, but had never vomited. Subject to attacks of vertigo. Sleep uncertain. Appetite good. Bowels very confined. Never had haemorrhage. His stomach contents had been examined after a test meal and found normal. Some years ago he was radiographed after a bismuth meal, and was told he had a "congested duodenum." For many months had suffered from hunger pain, which was relieved by sodium bicarbonate or more food; constant heartburn; waterbrash; recently some loss of flesh. On examination he was a spare man of distinctly neurasthenic type; introspective; impressed with the misery of his condition, and unfit for any continued exertion of mind or body. His thoracic organs were normal. The stomach was distended considerably below the costal arch, but there was no splashing heard on succussion. The tongue was wholesome and clean. The teeth had been well looked after. To the right of the epigastrium there was marked tenderness to pressure, which was intensified on breathing deeply, and the right kidney was palpable. His deep reflexes were exaggerated, but there was no evidence of organic change in his nervous system.

CASE II.

A robust-looking, active man, 45 years of age; a gentleman farmer. Family history distinctly gouty. For two years had suffered from recurrent attacks of dyspepsia, manifesting itself by pain in the stomach coming on about three hours after each meal, accompanied by much heartburn and flatulence, and relieved at once by more food. The bowels were usually very confined, but from time to time he got an unaccountable attack of diarrhoea. There had never been any haemorrhage. He lived a busy, but abstemious life. For some years he had unusual worries. On examination his tongue was slightly coated. The teeth were sound. His heart and lungs normal. His stomach was dilated to 1 in. above the umbilicus, and there was localized tenderness to the right of the epigastrium. He was subject to occipital headaches, which were most troublesome after an unusually strenuous day. His sleep at night was broken by dreams, and he was frequently waked at about

4 a.m. by his stomach discomfort. His deep reflexes were exaggerated. He suffered at times from polyuria, but his urine was normal. He was of the neurasthenic type.

CASE III.

A spare, pallid man, 57 years of age; a medical practitioner who had worked very hard and had lost about a stone and a half in weight. Four years ago operated on for suspected duodenal ulcer, but nothing found wrong with the duodenum. Appendix was removed. Had never felt well since his operation. Complained of fullness and pain coming on at varying intervals after food. Occasional heartburn. Frequent waterbrash. Discomfort always relieved by sal volatile and sodium bicarbonate, or by biscuits. Sleep at night uncertain. Bowels very confined. Suffered constantly from cold fingers and toes. No vomiting and no history of haematemesis or melaena. On examination his stomach was found dilated to the level of his umbilicus and splashing sounds were present. Resistance and tenderness marked over the right epigastrium. No "lump" felt and no glandular enlargement. Exaggerated reflexes and many subjective evidences of an unstable nervous system, but no symptoms of organic change. The urine contained no sugar or albumin, but phosphates were present in excess.

CASE IV.

A wiry, gouty type of man, aged 54; a soldier. Had enteric fever in India twenty-two years ago. After much worry had been suffering during past six months from flatulence, heartburn, loss of weight, disturbed sleep, and mental depression. Pain in the stomach three hours after each meal, which continued with more or less severity until he took more food, when it was at once relieved. Appetite good. No vomiting nor any history of haemorrhage. The bowels constipated. On examination, the tongue was coated and the stomach distended. Splashing sounds were readily produced. There was tenderness to pressure over the epigastrium, and the right rectus muscle was resistive to manipulation. The urine was high coloured, and gave a positive indican reaction. The colon was distended, but nowhere tender. The terminal joints of the fingers were thickened and bulbous. Heart normal, but with a moderate accentuation of the second aortic sound. The arteries were somewhat thickened and tortuous.

CASE V.

A robust, active man, aged 47; a manufacturer. Ten years ago, under the strain of excessive business anxieties, his nervous system broke down and necessitated a long period of rest. Eighteen months ago his appendix was removed. After this operation his health remained fairly good until February, 1914, when he began to suffer from abdominal discomforts, which were most pronounced before meals. He always felt hungry, and was never so free from epigastric uneasiness as immediately after food. He was constantly reminded that his digestion was wrong by waterbrash and regurgitations of sour acid fluid. Frequently disturbed in the early hours of the morning by pain in the stomach, which he relieved by a glass of aerated water.

He was a well-nourished man with no evidence of organic disease, but there was deep-seated tenderness to the right of the epigastrium. The stomach was of normal size, and neither kidney could be felt. The muscles at the back of the neck were stiff and painful on movement, probably from a mild fibrositis. Occasionally he suffered from irritable patches of dry eczema over the instep of the right foot. The heart was normal in size and regular in rhythm. There was slight accentuation of the second aortic sound and comparative dullness to percussion over the manubrium sterni. The urine was of high density, very acid, and contained urates in large quantity.

CASE VI.

An anaemic spare man, aged 45; a director of public companies. He had an attack of jaundice in 1905, and in 1903 had malaria in East Africa. In 1909 he began to suffer from acute heartburn and pain in the stomach, coming on, not immediately after, but within two hours of each meal. Had never vomited, and there was no record of haemorrhage. Though thin, he did not think he had recently lost weight. His complexion was cachectic, and suggested the possibility of pernicious anaemia. His tongue was coated and his breath disagreeable. The bowels were as a rule confined, but occasionally he had diarrhoeal attacks. His teeth had given him much trouble, but had been carefully looked after. There were no important blood changes.

On examination the chest organs were normal except for a haemic systolic murmur over the base of the heart. The stomach was dilated to the level of the umbilicus, and loud splashing sounds were easily produced. There was acute tenderness to the right of the epigastrium, and the corresponding rectus muscle resented even the lightest pressure. He was constantly troubled with regurgitation of sour undigested food. The liver was felt 1 in. below the costal arch. The urine contained a trace of albumin and gave a decided indican reaction. Since first seen he has had several minor attacks of above description, but he has now acquired a normal complexion, and the cardiac murmurs have disappeared.

CASE VII.

A healthy-looking, active lady, aged 32, who until recently had never been seriously ill; a school mistress. Family history unsatisfactory, one sister being neurasthenic, and one brother hopelessly alcoholic. After unusually hard work and

home difficulties she broke down entirely in 1910; after a prolonged rest she returned to work, but almost immediately broke down again, and had a Weir Mitchell cure, together with electric baths, hypnotic suggestion, etc., but no permanent improvement resulted. Since 1912 she had been subject to pain coming on three hours after each meal, accompanied by acute heartburn, and replacing entirely an ordinary atonic type of dyspepsia, from which she previously suffered more or less continuously. She had never vomited, but often experienced nausea. The relief to her discomfort that came from taking more food was appreciable, but not very lasting. The bowels were obstinately confined. Menstruation normal.

On examination her stomach was normal in size, but tenderness to the right of the epigastrium was pronounced. There was no discomfort, experienced on deep pressure over the appendix, but the right kidney was loose. A soft systolic murmur was audible over the cardiac area, but it was obviously haemic. The deep reflexes were exaggerated. Vasomotor phenomena were present, and particularly the fingers and toes were cold, blue, and defective in acuity of sensation. She always suffered from chilblains in cold weather. Mentally she was depressed and introspective. The urine contained a large excess of phosphates, but was otherwise normal.

CASE VIII.

A spare, energetic man, aged 68; a landed proprietor with no occupation. Family history gouty, but otherwise unimportant. For three years he had suffered from pain in stomach, coming on four hours after a meal, heartburn, flatulence, irregularity of bowels, and loss of weight. Had occasional vomitings, which at once relieved the discomfort. Never any bleeding. The pain at once disappeared on taking more food or sodium bicarbonate. Had been treated at Harrogate for colitis. Subject to attacks of vertigo on sudden change of position. His condition had been diagnosed by one physician as duodenal ulcer, and by another as early malignant disease at the pylorus.

On examination the heart was found slightly hypertrophied, with an accentuated second aortic sound and a definite systolic murmur over the aortic cartilage. The arteries were thickened and tortuous. The blood pressure registered 160 mm. The stomach was distended, and also the colon. There was tenderness in the epigastrium, most marked to the right of the middle line, and intensified on pressure. The urine was of low density and high colour; it contained a trace of albumin, and gave a deep indican reaction. The liver was of normal size. No gland could be felt anywhere.

CASE IX.

A stout, prematurely old man, aged 55; a stockbroker. As the result of overwork had for upwards of three years suffered from impaired digestion. Pain, flatulence, and heartburn coming on about three hours after meals and relieved by more food. Progressive loss in weight. Sleep disturbed at night by hunger-pain. Subject to nausea and retching, but never vomiting. No history of haemorrhage. The urine contained 1.2 per cent. of sugar, but neither albumin nor indican.

On examination the arteries were moderately thickened, and the sphygmomanometer registered a tension of 145 mm. of mercury. There was slight accentuation of the second aortic sound. The stomach was normal in size, but very distinct tenderness was experienced on pressure over the right epigastrium. The deep reflexes were *plus*. The small joints of the fingers were deformed from rheumatoid changes. The tongue was coated, and the bowels never acted except under the persuasion of aperients.

CASE X.

A gouty, well-nourished man of neurasthenic type, aged 57; a manufacturer. Had suffered for two years from gastric trouble, which had been diagnosed as duodenal ulcer, and for the relief of which an abdominal operation had been strongly urged. Uneasiness at the pit of the stomach coming on within two hours of a meal and becoming gradually accentuated until relieved either by vomiting, or bismuth, or whisky and water. He had been much impressed by the immediate comfort he derived from food. Waked almost every morning about four o'clock by sense of fullness giving rise to very acid eructations, and at once relieved by a cupful of Benger's food, which he always kept in a Thermos flask by his bedside for emergencies. The gastric contents had been examined after a test meal and were found to contain an excess of hydrochloric acid. After a bismuth meal, no abnormality was seen in the gastro-intestinal tract. The faeces had been investigated for occult blood, with a negative result. He was mentally depressed and his life was wretched from the continuance of his gastric discomforts. For years he had been subject to migrainous headaches. Accustomed always to live freely.

On examination, no physical signs of organic disease could be found anywhere, but there was localized tenderness to the right of the epigastrium and the liver dullness extended below the costal arch. The colon was distended and borborygmi were a constant source of annoyance. The urine contained phosphates in excess, but was otherwise normal. The deep reflexes were exaggerated, but, apart from various neurasthenic manifestations, the nervous system was intact.

This short synopsis of cases records clearly the main features of this variety of dyspepsia. It will be observed that there is only one female among the ten narrated.

The condition is not, in my experience, often met with in women, and probably the sex incidence is fairly represented by the ratio here shown. On the question of diagnosis, the close similarity which exists between its symptomatology and that of duodenal ulcer must at once arrest attention. Hunger pain, acidity, epigastric tenderness, distended stomach, and constipation are leading features of both conditions. It may possibly be true that fatigue dyspepsia is a forerunner in some instances of actual tissue change in the duodenal mucous membrane, but the contention that such symptoms are pathognomonic of an established ulcerative process cannot be maintained in face of cases such as are here described. The occurrence of occult blood in the stools or of actual haemorrhage is a confirmatory sign which ought to be established before the more serious interpretation of the symptomatology is accepted.

Fatigue dyspepsia is amenable to treatment by medical measures, and the question of surgical interference should only arise either when these measures fail or when the presence of blood proves that breach of the mucous membrane has actually taken place. The possibility of perforation is the terror held forth to justify an abdominal section, which has been advocated as the one and only safe procedure where hunger pain, acidity, and epigastric tenderness have become an established experience. But though the occurrence of perforation is a calamity which obviously ought to be prevented at any cost, it may be questioned whether it is of such frequent occurrence as some surgical enthusiasts would lead us to fear. In any case it is certain that a large number of cases presenting this triad of symptoms can be controlled and their comfort restored by therapeutic measures; it is therefore in the interests of every patient so suffering that he should be allowed to prove their inefficiency before giving himself over to the chances of a gastro-enterostomy, which, after all, may prove to have been unnecessary.

TREATMENT.

The treatment of fatigue dyspepsia may be considered conveniently under three headings: Dietetic, therapeutic, and disciplinary.

Dietetic.

The main indications to be observed in the matter of diet are avoidance of sugar, tea, sweet or effervescent wines, uncooked fruit or vegetables; and limitation of starches, red meats, and accessories.

It may conduce to brevity to give a short summary of the diet scheme I have found to answer best. It may be added that, as regards treatment generally, the plan about to be described has been adopted with gratifying success in the before-mentioned cases, and in a large number of others having a similar grouping of symptoms, with such variations as have been necessary to meet special circumstances or individual idiosyncrasies.

Diet.

8 a.m.—A tumblerful of piping hot water, made pleasantly alkaline by the addition of half a teaspoonful of potassium citrate.

Breakfast.—Café-au-lait sweetened with saxon; "energen" * or other bread containing a minimum of starch; butter; eggs, bacon, or white fish; sugarless marmalade.

Luncheon.—Lamb, mutton, tongue, ham or veal every other day alternatively with calf's head, tripe or sweetbread; cooked green vegetables in purée form, asparagus, globe artichokes, sea-kale, lettuce, or celery; stewed fruit, sweetened with saccharine, and taken with cream; "uga" † or other form of lactic acid cream cheese spread on a water biscuit; an alkaline aerated water.

Afternoon.—Cocoa, or boiled milk: torrifed bread and butter.

Supper.—Clear soup in small amount: white fish; chicken, or other bird; potato or artichoke chips; omelette or custard made with milk and eggs, or junket with cream; a glass of dry light wine (sherry, chablis, hock or moselle); or whisky in small amount well diluted in an alkaline water.

At Bed-time.—A cupful of hot milk, fortified, if so desired, with a tablespoonful of whisky or brandy.

* "Energen" is to be obtained from the Therapeutic Foods Co., Covent Garden. Each roll contains 300 gr. of starch.

† "Uga" cheese is supplied by Clay, Paget and Co., 71, Ebury Street, S.W.

Therapeutic.

The indications, so far as drugs are concerned, seem to be to control the abnormal activity of the gastric mucous membrane, to counteract hyperacidity, to provide against excessive fermentative processes, and to supply suitable tonics according to the requirements of each individual case.

The initial treatment should aim at combating the first two of these indications, while subsequent management must be directed towards meeting the others by an attempt to disinfect the gastro-intestinal tract and to restore the equilibrium of organic health.

In fatigue dyspepsia there is reason to think that probably the excess of acidity, which is a leading feature of the condition, is due to an excitable and over-active state of the gastric mucous membrane; and, on this hypothesis, the following prescription is calculated to exert a controlling influence:

R Liq. morphinae hydrochloratis	...	...	āā	℥ x
Tinct. belladonnae	...	...	...	...
Sol. adrenalin. chlor.	...	...	...	℥ xx
Spts. menth. piper.	...	...	...	℥ xxx

To be taken in one tablespoonful of water half an hour before meals.

The hyperacidity will be chemically counteracted by such a combination of drugs as the following:

R Bismuthi carbonat.	...	...	...	gr. xxx
Magnes. carbonat.	...	...	...	gr. xx
Sodae bicarbonat.	...	...	...	gr. xxx

Ft. pulv.

To be taken in a wineglassful of water, whenever there is heartburn.

As a rule, within a fortnight these measures suffice to overcome all discomfort if they are adopted in association with the diet scheme above suggested.

The further requirements must now be met by a combination of drugs suited to the symptomatic demands of the patient and based upon the principle of combining a tonic with an antiseptic and a nerve sedative.

In a large majority of cases the following will be found a useful formula:

R Ext. valerian.	...	...	...	āā	gr. ij
Ac. carbol. pur.	...	...	...	...	...
Strychninae	...	...	...	...	gr. ʒo
Codeinae...	...	...	...	...	gr. ʒ
Ext. rhei	...	...	...	...	gr. jss

Ft. capsul.

To be taken three times a day, after meals.

With another class of patient, where anaemic tendencies are discernible, the formula may be modified in some such way as this:

R Ferri glycerophosphat.	...	...	...	āā	gr. iij
B. naphthol.	...	...	...	...	...
Ext. nucis vom.	...	...	...	...	gr. ʒ
Ext. cannab. indic.	...	...	...	...	gr. ʒ
Pil. galban. co.	...	...	...	...	gr. jss

Ft. capsul.

To be taken three times a day, after meals.

These formulae are quoted merely as exemplifying the plan upon which the indications are to be met; but in every instance the prescription must be fashioned so as to deal with constitutional tendencies as well as to correct symptoms.

All patients will not respond with equal success to the same combination of drugs. The person and not the disease demands treatment, and satisfactory results will ensue only when every factor is taken into consideration, and a prescription formulated accordingly. The haphazard use of drugs or formulae reputed to cure or alleviate dyspepsia is of no value whatever. It is a mere shot in the dark, and more frequently misses than hits the mark.

Therapeutics is an art which does not lend itself to generalization, but, to be effective, must endeavour to combat in detail the minutiae of the health disturbance against which it is directed. So applied it is of inestimable value, and is capable of achieving happier results than those who scoff at drugs give it credit for.

In almost every case of fatigue dyspepsia constipation is a conspicuous trouble, and is largely due to hepatic inadequacy and colonic inertia. These difficulties are often overcome by liquid paraffin given in a tablespoonful dose at bedtime, followed, if need be, by from 4 to 6 oz. of

Rubinat water the following morning. Alternatively a homely but useful morning saline may be prepared in the following way: One ounce each of Epsom salts and cream of tartar, with a thick slice of lemon and two pellets of sasin, are added to a pint of boiling water; after cooling this solution is strained through muslin, and may be taken before breakfast in a dose of from a sherry to a claret glassful.

Once in four or five days the evening dose of paraffin should be replaced by an "antibilious" pill of this type:

R Hydrargyri subchlor.	...	...	...	gr. j
Fel. bovin. purificat.	...	...	...	gr. jss
Ext. colocynth.	...	...	...	gr. ij
Ext. hyoscyam.	...	...	...	gr. ss

Ft. pil.

Disciplinary.

The morning bath ought to be hot, 96° to 102° F., and the patient should be instructed to apply active massage to his abdominal walls for a few minutes while he is submerged in the water. On leaving his bath, and after an active towelling, he ought to practise a few simple exercises of such a kind as will supple and put into use all his voluntary muscles, and provide for the thorough expansion of his chest.

The day's work should be so ordered that no undue demand is put upon his energies, mental or physical, and it is of special importance that no work of any kind be undertaken after the evening meal. The relaxation afforded by an evening game of some kind has a therapeutic value of no small moment.

Eight hours out of every twenty-four ought to be spent in bed, and for those who are heroic enough a complete day in bed once a month is a counsel of perfection which will well repay the practice.

Holidays are essential, and though the popular week-end in the country is in every way excellent, it is even more important, from the point of view of conservation of energy, that once in every year a long rest should be provided for, away from the usual routine of business or professional necessity, and for choice in the quiet of the country where the peaceful companionship of nature is allowed to replace for a time the feverish activities of workaday life.

PROGNOSIS IN HEART DISEASE.

BY

C. EDGAR LEA, M.D., M.R.C.P.LOND.,

HONORARY PHYSICIAN, ANCOATS HOSPITAL, MANCHESTER; ASSISTANT MEDICAL OFFICER, MANCHESTER ROYAL INFIRMARY.

It is probably true that in no branch of medicine is an accurate prognosis more widely demanded and, withal, more difficult to offer than in diseases of the heart. The reasons are not far to seek. The oftentimes dramatic suddenness of the *exitus*, the general knowledge of the essential integrity demanded of the heart for the continuance of life, and the readiness with which its various disorders manifest themselves subjectively, make any observations, which can gain greater accuracy of forecast or, perchance, alleviate impending uncertainty, of great value. The difficulties depend upon the fact that we are dealing with a smooth muscle organ which responds with readier changes in its action, and to a wider field of possible stimuli, than does any other organ of similar type.

Accepting the fact that a gross lesion of the cardiovascular system is known to be present, prognosis must be directed to answering two questions:

1. How long may the patient live?
2. In what manner may his life be affected?

The chief gross conditions one has to deal with come under four headings: (a) Valvular disease; (b) mechanical disabilities, especially adherent pericardium; (c) cardio-arterial degeneration; and (d) malignant endocarditis.

Ruling out, for the purpose of the following observations, malignant endocarditis, whose invariable fatal issue needs no comment here, and also adherent pericardium, which is so usually associated with other gross lesions as to demand no separate consideration, we find two major groups of cases—the one, valvular disease, following most usually upon an infection in early adult life; the