TREATMENT IN GENERAL PRACTICE

This article is one of a series on the management of some diseases of the digestive system met with in general practice.

THE MEDICAL TREATMENT OF PEPTIC ULCER

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PART II

In the last article a list was given of the types of case in which surgical treatment might be preferred to medical.

Perforation calls in every instance for surgical treatment: the treatment of haematemesis and melaena forms the subject of a special article in this series. Cases in the remaining groups often present a very difficult problem. In general a higher percentage of good results will be obtained by surgical than by medical treatment, but it is common to meet patients with one or other of the complications referred to in whom either there is a physique of poor quality; or there is some complicating organic disease such as hypertension, a cardiac lesion, pulmonary tuberculosis, etc.; or there is an invincible objection to surgical treatment. For such patients medical treatment is adopted, in spite of the belief that surgical treatment may be indicated.

Cases with some Degree of Obstruction

Cases with some degree of gastric, pyloric, or duodenal obstruction will show delay in the emptying of the stomach when examined by x rays. A residue of barium in the stomach four hours after ingestion is generally accepted as pathological, and it is by no means uncommon to see a case in which such a residue persists even twenty-four hours after the administration of barium. There is another important group of cases of juxta-pyloric ulceration in which, although x -ray examination reveals no great delay in emptying, the patient gives a history of periodic attacks of pain and violent vomiting, often occasioned by some emotional disturbance such as a domestic dispute or a slump on the Stock Exchange. These must be regarded as very early cases of partial gastric obstruction, in which an element of occasional spasm is sufficient to cause temporary obstruction; they call for particular care, because a violent attack may provoke a dangerous haemorrhage.

It being accepted that surgical treatment is for some reason contraindicated, cases in the classes referred to must be treated with special precautions. Not only must the initial steps of treatment laid down in the first section of this article be prolonged, but when the final diet is approached it must be realized that it is unlikely that the patient will be able to tolerate some of the foods permitted to cases without obstruction. His final diet must contain plenty of fluid and easily liquefied foods. The partially obstructed stomach tends to become overloaded in the later hours of the day, and therefore the more substantial meals should be at breakfast and lunch, and the evening ones correspondingly diminished.

Alkalosis, characterized by headache, nausea, and vomiting, is particularly apt to occur in patients with pyloric stenosis, and so the amount of alkali should be limited to a small one. It is often better to have recourse to some very mild alkali such as simple prepared chalk.

The following is the type of regime often applicable in the final stages of treatment of such cases:

8 a.m.—Belladonna.

9 a.m.—One lightly cooked egg. Two pieces of thin crisp toast with butter and jelly. Two cups of milky tea or coffee.

10 a.m.—A teaspoonful of prepared chalk with water.

11 a.m.—A cup of some milky feed, with a sweet biscuit.

12 noon.—Powder as before.

1 p.m.—Soft fish, minced chicken, or a soufflé. A small helping of well-mashed milky potato. Milk pudding, junket, baked custard, or ice-cream.

2.30 p.m.—Powder.

4 p.m.—Tea, with sponge cake.

6 p.m.—Powder.

7.30 p.m.—A bowl of milky soup with crisp thin toast; or two poached or scrambled eggs; or steamed plaice with one slice of crisp toast and a glass of milk.

9 p.m.—Powder.

10 p.m.—A cup of some hot milky feed.

Many patients with a considerable degree of pyloric stenosis have been kept in good health for years on a regime such as this. The older the patient and the more sedentary his habits the more likely are good results to attend such treatment, but I have seen it successful many times, and even in some instances among labourers of the poorest class. It is clear that most careful education of the patient is necessary if such success is to be obtained; the exact condition of his stomach must be made clear, and the grave risks of perforation and haemorrhage impressed upon him. When this has been done, and he realizes that the treatment is a difficult alternative to surgical operation, he will often collaborate in a most satisfactory manner; without such intelligent and willing collaboration failure is almost certain to follow.

Deep Ulceration and Adherence to Neighbouring Structures

This is perhaps the commonest class of case in which surgery is the more desirable type of treatment, but it must be recognized that the operation is usually a very serious one, and that the low mortality achieved by the great gastric surgeons is a tribute to their personal skill and in no way suggests that the operation is of minor character. The resection of a considerable portion of the stomach is the most usual treatment, and many patients are encountered who prefer to face the very possible failure of medical treatment over a long period rather than to risk an operation. In justice to himself the practitioner must explain the situation very carefully to the patient, after which medical treatment should proceed either on the lines laid down in the first section of this paper or by means of duodenal feeding. If the usual method of oral feeds and alkalis is adopted all food must be kept fluid for at least a month, although the size of the feeds, there being no gastric obstruction, must be sufficient to secure a diet of a total calorie value of 2,000 a day. Duodenal feeding has achieved some brilliant successes in cases of this type, and presents little difficulty when carried out in a nursing home or institution. The majority of patients do not find it unpleasant after the first few days.

When this line of treatment is adopted careful x -ray examination should be carried out once a month, in order that the condition of the ulcer may be noted, and if,

healing appears to be in progress treatment must still be continued for a long time, in view of the very chronic nature of such lesions.

Suspected Malignancy

Patients are not infrequently seen with symptoms suggestive of peptic ulceration, but with a history so short that the suspicion of malignancy arises. When, in such cases, the radiologist finds a large ulcer of somewhat atypical appearance this suspicion is often increased. It now becomes a most difficult matter to decide on the right lines of treatment; should the ulcer be a malignant one the only possibility of saving the patient's life lies in surgical intervention, whilst if the ulcer is non-malignant it will probably heal with effective medical treatment, and the patient will then be left in a better position than if an extensive resection of the stomach has been performed. The treatment adopted will depend largely on the personal feelings of the patient and his immediate medical adviser. Obviously a mere whisper of the word "cancer" will be sufficient to make the patient turn towards surgery, and this makes the decision even more difficult. In view of the very bad prognosis which still attaches to all examples of cancer of the stomach there is perhaps sound reason to argue: "If this patient has cancer the chances of cure are remote, if he has a simple ulcer the chances of cure by purely medical means

are excellent." Those to whom this argument appeals will accordingly adopt medical treatment on the lines laid down above. This is not the place to discuss this problem further, but it should be added that the decision must be faced and made firmly, in one direction or the other, and acted on without delay.

Other Difficult Cases

It has been said that surgery should be adopted in all cases which continue to relapse in spite of efficient medical treatment. Such cases, unless attended by one of the complications dealt with above, are rare. In my experience I seldom encounter a case of simple gastric or duodenal ulcer, even when the history goes back for ten or fifteen years, in which the medical treatment previously adopted has been such that I should have expected it to cure the patient and prevent relapse. It is particularly the prevention of relapse that is neglected, and this can only be done when the practitioner in charge arranges for the periodic revision of each case, in order to see that gross foci of sepsis are avoided and that the patient's dietetic routine, when at work, is sensible in character. It is only when this has been carried out, and it can be shown that the patient relapses in spite of reasonable care on his own part and in spite of wise guidance by his medical attendant, that uncomplicated cases of peptic ulcer should be treated surgically rather than medically.

A NEW GERMAN LIFE TABLE

[FROM A MEDICAL CORRESPONDENT IN BERLIN]

The life table for the German Reich prepared in connexion with the census of June 16th, 1933,¹ raises many interesting questions. The previous life table was based on the mortality experience of three years, 1924-6, the new table upon the mortality of 1933 only. Apart from the advantage of more speedy publication, the reason for using only a single year's mortality was that in 1933, for the first time, deaths at ages for the whole Reich could be distributed into administrative districts of different population sizes, so that separate life tables for different types of administrative district could be calculated, as was done for England and Wales in 1920-2.

Although therefore the life tables of 1924-6 and 1933 are not strictly comparable, it may be noted that the expectation of life at birth has increased for males from 56 years to 59.8 in 1933 and for females from 58.8 years to 62.6. The English national tables for 1930-2 have not yet been published, but will probably not show quite such large values.

Death Rates at Different Ages

A further technical advantage of the new tables is that for the large majority of the population births and deaths have been allocated to the normal place of residence of the mother or of the deceased person. Tables have been constructed for the whole population, for inhabitants of districts with less than 2,000 inhabitants, for inhabitants of districts with population from 2,000 to 100,000, and for inhabitants of districts with more than 100,000 population—that is, roughly, rural districts, towns of moderate size, and large towns. Taking the whole population, rates of mortality have improved between 1924-6 and 1933 in all age groups except 5 to 9 and over 80 years. In childhood and at ages 20 to 24 the improvement is very striking. For instance, the probability of dying in the first year of life has fallen from 0.115 to 0.085 for males and from 0.094 to 0.068 in females. These are possibly still a little higher than contemporaneous English rates, but the rates at pre-school ages may prove superior to the English figures.

¹ *Neue Beiträge zum deutschen Bevölkerungsproblem*. Berlin, 1935. Sonderheft 15 zu *Wirtschaft und Statistik*.

At every age the mortality of females is less than that of males, even in the second half of the child-bearing period—namely, in the age groups 30 to 35 and 35 to 40, in which the 1924-6 life table still showed a higher rate for females.

Mean Probabilities of Dying (q_x) Multiplied by 1,000

Year of Age	Males			Females		
	1933	1924-6	% Ratio	1933	1924-6	% Ratio
0	84.99	115.38	74	67.66	93.92	72
1	9.33	16.19	58	8.16	14.93	55
2	4.45	6.36	70	4.10	5.74	71
3	3.40	4.04	84	2.80	3.62	77
4	2.76	3.16	87	2.40	2.86	84
5-9	1.88	1.83	103	1.70	1.63	104
10-14	1.23	1.42	87	1.09	1.32	83
15-19	2.08	2.86	73	1.73	2.47	70
20-24	2.81	4.46	63	2.46	3.60	68
25-29	3.09	4.22	73	2.84	4.02	71
30-34	3.53	4.09	86	3.20	4.27	75
35-39	4.30	4.65	92	3.90	4.82	81
40-44	5.60	6.05	93	4.70	5.67	83
45-49	7.79	8.31	94	6.59	7.30	90
50-54	11.45	12.08	95	9.46	10.23	92
55-59	17.04	18.43	92	13.89	15.14	92
60-64	26.19	28.39	92	21.86	23.87	92
65-69	41.75	44.84	93	36.00	39.04	92
70-74	67.25	70.94	95	61.26	63.52	96
75-79	109.42	111.33	98	100.73	103.35	97
80-84	175.27	168.64	104	158.95	157.18	101
85-89	249.27	241.30	103	235.80	223.80	105

The summarizing table here given, as except for the earliest ages it sets out the rates for quinquennia, does not bring out a peculiarity in the course of mortality to which