THE MEDICAL TREATMENT OF PEPTIC ULCER*

BY

SIR EDMUND SPRIGGS, K.C.V.O., M.D., F.R.C.P.

PART II

Discussion of Personal Anxieties and Rearrangement of Life

In the course of treatment careful attention must be paid to the state of mind. It is known that mental strains predispose to peptic ulcers and to their recurrence. We have seen many cases which confirm in this respect the study of Daniel Davies and Macbeth Wilson (1937). The patient is encouraged to bring to light difficulties and anxieties. Some folk have not before had a chance to think quietly about their circumstances as they can and do at a time of rest. A discussion of this kind should be sympathetic, and encourage the patient to talk, rather than be an inquisition. In family matters it is always a help to see the relatives. The mental relief of coming to a decision about former overwork or maladaptation, or even simply of telling the story to a reliable confidant, is a factor in recovery and in the prevention of recurrence.

In the latter part of the time in bed, when the urgency of allaying symptoms is gone, the daily routine on returning home is considered, suggestions being discussed for food, work, rest, and other adjustments. This part of the treatment should not be left until just before departure.

The Second Month

After a month's treatment the progress, as judged by the general state, symptoms, and signs, is verified by a second x-ray examination. By this time—or often much earlier, as mentioned above, if pain, other symptom, or blood in the motions persists—any complication will be revealed or suspected and suitable treatment followed, including surgery if needed.

In most cases symptoms are now gone, and either the crater of the ulcer is no longer visible or, more usually, its site can just be detected. A large ulcer may be smaller but still there. We know, from researches to be mentioned below and from gastroscopic studies, that the filling up of a crater does not mean that an ulcer is healed. The patient continues, therefore, the regime of diet and medicines, but, provided that pain is gone, begins to get up, first for bath and toilet; then he sits up an hour or so in the afternoon; and later takes short walks, five minutes at first, then longer ones every day or two. He also lies out-of-doors in a shelter for an increasing time when weather permits. The full rest-hours in bed continue—namely, 12 to 1, after lunch, and 6 to 7 p.m. The danger at this stage is that the patient, being relieved of symptoms although he understands that the ulcer is not soundly healed, feels that he ought to return to his duties and “finish the cure at home” by “being careful.” He is always told at first of the length of treatment advised, and sometimes is given also a statement on paper, such as is printed in Appendix II. Not a few of our patients, who have felt so well in three or four weeks that they have returned home, have followed a regime carefully, but have suffered relapse and returned for full treatment; and some who have left with half-healed ulcers have had severe or even fatal haemorrhage or perforation within a few months.

The wisest plan is to give an ulcer the most thorough treatment available so soon as its presence is known.

Adjustment of Diet in Second Month

The changes made do not alter in principle the food of the “full diet for healing ulcer” given in Part I, but fit it

to the personal taste so far as possible. The patient is asked what dishes are most irksome and what he would like. It is explained that the food is intended to be nourishing and palatable but that strong tastes, condiments, or seasonings that “make the mouth water” are left out because they are likely to increase the flow of acid gastric juice. Among such variations, stated roughly in order, are: the addition of tea, one part in three, to the milk at tea-time and later the same at breakfast; more, or less, plain sauce with fish, etc.; alterations in the amounts of other food; more cold fat bacon at breakfast; later, jelly marmalade, no shreds; some light meat or egg dish instead of fish in the evening; different kinds of milk puddings, jellies, blancmange, and, later, light suet pudding; varieties of biscuit or plain cake and a little jelly or jelly-like jam at tea-time; a little cream cheese (not salty) or a plain mild cheese, with bread or plain biscuit, instead of a sweet, for those who prefer it. A small piece of cheese must be well chewed up with a larger piece of biscuit, toast, or bread before it is swallowed.

Each of these or similar variations is made on one day only, and the effect noted for a day or two. If symptoms return another food may be tried, and so on. If the patient is comfortable and satisfied with the diet it should not be altered. Much depends on the skill of the cook in preparing and the dietist in ringing the changes on allowable foods, and in serving meals hot and in as pleasant a form as possible. As J. H. Anderson pointed out, it is often a help for the doctor to visit the patient at a mealtime.

At the end of the second month a further skiagram is taken. If there is no sign of the ulcer when the part on which it lay is brought into accurate profile as well as *en face* and its strial pattern is studied in detail it is now probably covered with a reasonably resistant membrane; and the gastroscope is available to confirm or aid the radiology.

Diet After the Second Month

The next step is to add a fruit purée, usually stewed apples mashed up with cream, one tablespoonful to begin with, at the midday meal. It is taken after other food so that it may mix with it in the stomach. If there is no symptom a tablespoonful of boiled greens passed through a sieve is given on a different day; such as lettuce, young cabbage or the white heart of older cabbage, spinach, Brussels sprouts, or cauliflower, mixed with butter or cream. This is tried for two or more days. If the mashed stewed fruit and sieved greens are both well borne one can then be taken at the midday and the other at the evening meal. When there has been no symptom for a couple of months the well-chewed pulp of ripe raw fruit may be tried in the same way—always after other food, not between meals. Salads are not recommended. Coffee is postponed until later, and when taken should be used only as a flavouring in milk. It is a good plan, now and later, for the patient to have available for the day 5 oz. of cream† in a quart of milk to which is added a teaspoonful or more of sodium citrate. The patient can drink from this at intervals, and especially between meals.

Length of Treatment

The treatment must be continued long enough. I have advised in most cases a three-months course—the first month in bed, the second month gradually getting up and increasing exercise, and the third month a holiday on a fixed regime. This advice is founded on clinical experience and experimental evidence. It has long been known (Griffini and Vassale, 1888; Bolton, 1908–10), and is confirmed by a mass of later work, that healing ulcers, seen at

† The “cream” now made from margarine is probably equally good.

operations, necropsies, or in experiments on animals, may be covered over in a week or two, but it is often three months before the irregular new mucous membrane is a few cells thick. That is still far less than the thickness of the normal lining, and the epithelial and glandular cells are not of the same quality as the original ones. Older ulcers are slower in gaining their first cover of epithelial cells; and fibrous tissue and collections of lymphocytes may be more prominent beneath the surface than glandular structure (Stewart, 1929; Robertson, 1939). The patient is told that the absence of symptoms does not mean the ulcer is healed, and that three months is the shortest time in which reasonable safety from recurrence is likely to be gained.

The correctness of this practice, which we have followed for many years, has been confirmed by recent work with the gastroscope (Rodgers and Tanner, 1939).

The holiday for the third month is not always taken, because the patient feels well and believes, still more strongly than when pain was relieved after three or four weeks, as described above, that duties can now be resumed. It is explained that the healing of the ulcer is a good beginning but that success depends on keeping well afterwards, and that the tendency to recurrence must be borne in mind. The patient is apt to think of diet and less of the other factors of rest, freedom from overwork and daily anxieties. In a typical healing case it is in the long run a saving of time, disappointment, and expense to take the holiday.

No patient is regarded as cured until the symptoms have ceased, the motions have been free from occult blood for several weeks, the haemoglobin percentage is normal, and the x-ray evidence is gone. The last should be confirmed, if necessary, by the gastroscope.

After-treatment

In working life a rest before lunch may not be possible, though one after lunch can often be managed, as well as the rest before the evening meal. Every two to three hours some food should be taken, such as milk and a biscuit between meals. Beer, spirits, and wine are in my experience adverse influences. If taken at all a much-diluted spirit—for example, a tablespoonful of whisky in a tumbler of water or soda-water—sipped with the food, is the least harmful. Alcohol on an empty or nearly empty stomach, as at cocktail time, is always to be avoided. Tobacco should be taken only after a meal, and in moderation. Much motoring seems to be harmful for the passenger and still more for the driver in those subject to ulceration: recurrence or a new ulcer may follow. Not a few people have developed a habit of going everywhere they can by car. For long journeys the train is better, less tiring, and more comfortable. Regular holidays, spent quietly, are advisable.

Lastly, it is necessary to continue for years, and probably always, the suggested restrictions of food, drink, tobacco, work, and play; bearing in mind that the four elements of treatment laid down in the first paragraph are also to be used as preventive measures. The dietetic restrictions are not severe, for the food needed can be found on any ordinary table; and to avoid or reduce alcohol and tobacco, and prevent fatigue, tends to promote the health and lengthen the life of all, whether subject to dyspepsia or not.

Most of the patients with peptic ulcers have recovered with the above routine and have kept well. The later history of a great number of them is known to us. In a proportion of cases surgery has been advised and has restored health—especially of late years a partial gastrectomy. Pyloric and duodenal ulcers are often slower

in healing than those on the lesser curvature of the stomach; they do, however, if uncomplicated, get well. Jejunal ulcers (Picton Davies, 1935) are also slow, but have healed on the regime detailed.

Summary

The treatment of peptic ulcer, with or without recent haemorrhage, by immediate feeding is described in detail as now used in the Ruthin Castle clinic, also various changes for different cases. The method followed the work of H. Lenhartz and has been used by myself and my colleagues, with modifications, for thirty-four years in most of 730 cases in the clinic and in a great number of others.

The method differs from many regimes in that egg albumen, and usually olive oil, are taken into the stomach at once with the purpose of binding the gastric acid, lessening its secretion, and soothing the inflamed area. Increases of food are made almost daily, according to progress; a reasonable variety and enough food value for a person in bed are often reached in ten to fourteen days.

In the treatment of peptic ulcer diet is one factor; others are physical and mental rest and suitable medication. The healing of the ulcer should be proved by x rays and, if necessary, excepting duodenal and some pyloric and jejunal ulcers, by the gastroscope.

Appendix I

We use Gregersen's slide modification of the benzidine test as a routine method (Gregersen, 1919). An account is given by G. A. Harrison (1937). On a plain diet, with meat once a day, a blue colour developing in fifteen seconds on repeated examination is regarded as probable evidence of blood, and in thirty seconds as suspicious. Due regard is paid to the amount of muscle debris seen microscopically. A minute amount of blood from tooth-brushing (or an ulcer) will not give a positive test. We have found that at least 0.7 c.cm. of blood in an ordinary motion weighing 100 grammes is needed.

In cases of doubt calling for a confirmatory test on a haemoglobin-free diet the more delicate haematin extraction and spectroscopic tests are used.

A. J. LEIGH, B.Sc., Ruthin Castle Laboratories.

Appendix II

Example of Advice given to the Patient when the Diagnosis is made

With proper treatment an ulcer is usually soon covered with a thin skin. The symptoms often cease and the patient feels he can return to his duties; but the ulcer is not yet soundly healed, and is likely to break down with unsuitable food or drink or any physical or mental strain. It is known that it may take three months for a membrane a few cells thick to grow over an ulcer. The normal covering is thicker.

Adequate treatment consists of a full month in bed, beginning with olive oil, egg and milk, and a diet which increases a little every day or two. Physical and mental rest are as important as diet. Suitable medicines are prescribed. At the end of a month the condition is reviewed with the aid of another x-ray examination and, if necessary, the gastroscope. If progress is satisfactory you will then begin to get up gradually, another examination being made a month later. If all goes well the third month may be a partial holiday, with gentle walks and the like. Most people with your complaint who have had this treatment have become well and with care afterwards have kept well.

Treatment in your case began on September 8. The first review with x rays will probably be made about October 8 and the second about November 8.

Appendix III

Copy of Instructions given to a Business Man after Two Months' Treatment

(Occasionally a patient is not tolerant of olive oil, which would then be omitted and a substitute given, as mentioned in Part I.)

The diet should be simple and wholesome, avoiding highly spiced, salted, and twice-cooked foods, and those containing shreds, pips, or hard pieces, meat soups, strong sauces, rich gravies, and hot fats. Any tender meat may be taken with other food. Limit for the present the sieved vegetables to once a day and take orange juice after food as the only fruit. In a fortnight try adding apples, well stewed or as a purée with a little cream, at one meal. Eat slowly, chewing all food well, and allow enough time for meals.

The following is an example of a menu from which the day's diet is to be chosen:

Breakfast.—Porridge and cream; cold ham or boiled egg; toast, butter; jelly marmalade; milky tea, and later milky coffee.

10.30 a.m.—Cup of chocolate and biscuit.

Lunch.—Mutton, chicken, lamb, young rabbit, veal, game (not high), or tender beef; potato; sieved vegetable; milk, custard, or light steamed pudding; toast, butter; cream.

Tea.—Milky tea; bread-and-butter; jelly or honey; plain cake; biscuit.

Dinner.—Fish, sweetbread, brains, tripe, cutlet, tongue, chicken, or egg dish; potato; cold sweet—for example, jellies or blancmange—or milk pudding; toast, butter; cream; juice of one orange.

10 p.m.—Benger's food.

Smoking and alcohol are not advised. Take a walk daily, short of fatigue. Avoid chills, colds, and getting wet. Retire at 10 p.m. While on holiday always rest, lying down, before lunch and dinner. On return to work rest after lunch if possible, but in any case rest a full hour before the evening meal.

Continue the liquid paraffin night and morning, modifying the dose as required, a dessertspoonful of olive oil half an hour before lunch and dinner, and the powder three times a day after food; or other medicines as advised. No change should be made in this regime without consulting your doctor, who has a full report, with copies of prescriptions, and will modify the treatment as needed.

No work should be attempted for another month. In the meantime lead a quiet regular life; avoid hurry, long-continued effort, and talking for long periods; alternate activity and rest, compensating for extra effort with extra rest. The return to work should be gradual, beginning if possible with two to three hours a day for the first week.

The condition should be reviewed, with radiographs, in six months.

Appendix IV

Copy of Instructions given to an Elderly Housewife

The diet should be simple and wholesome, avoiding pastry, highly spiced, salted, seasoned, and twice-cooked foods, and those containing shreds, pips, hard pieces, and skins. Green vegetables should be sieved, roots mashed, and fruit taken as fruit juice, jelly, or purée.

The following is an example of a menu from which the day's diet is to be chosen:

Morning Tea with Milk.

Breakfast.—Porridge and cream; cold boiled or grilled bacon and egg; toast, butter; jelly marmalade; milk flavoured with tea or coffee.

10.30 a.m.—Milk and rusks, or biscuits.

Dinner.—A little mutton, tender beef, chicken, sweetbread, or tripe; mashed potato; sieved vegetables; plain baked or milk pudding, junket; thin toast, butter; cream; the juice of an orange in water with glucose.

Tea.—Bread-and-butter; fruit jelly; plain sponge cake; flavoured milk.

Supper.—Fish (varied) or any light dish; cold sweet, milk pudding, or custard; stewed fruit; bread (not new) or thin toast, butter; cream.

10 p.m.—Milk and rusks, or biscuit.

Breakfast in bed; rest for an hour before lunch and again before dinner; bed not later than 10 p.m. Exercise should be limited to a gentle walk on the level morning and after-

noon, gradually increasing up to an hour a day. Long motor runs are to be avoided. Continue the liquid paraffin and the olive oil, one dessertspoonful each twice a day, and the alkaline powder three times a day after meals.

A full report, with all the prescriptions, has been sent to your doctor, who will modify the treatment. A return in a few months is advised for re-examination.

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EFFECTS OF A SUPPLEMENT OF VITAMIN B (ADSORBATE) ON THE GROWTH OF INFANTS

BY

MARGARET R. PRICE, M.R.C.S., L.R.C.P., D.C.H.

Since it has been recognized that, apart from the existence of frank deficiency diseases due to hypovitaminoses, minor degrees of ill-health may arise from mild degrees of vitamin deficiency, the question has arisen as to how far the health and development of infants may be improved by increasing the vitamin content of their feeds. With regard to the vitamins C and fat-soluble A and D there is general agreement that they should be supplied to artificially fed babies in the form of citrus juice and cod or other liver oil.

The position as regards vitamin B₁ is less clearly defined, and reports of the clinical effects of supplements given to infants appear contradictory. Thus Gaynor and Dennett (1934) gave a supplement of the vitamin extracted from rice polishings and found that the infants receiving it made better growth on an average intake of 35 calories per lb. body weight than did their control group on an intake of 45 to 55 calories per lb. They recorded also that the children receiving the supplements were more advanced in teething and in learning to crawl. Elias and Turner in 1936 gave supplements of wheat germ or brewer's yeast to 121 babies, and observed also 117 control children, all 238 being well fed. They did not find that the supplement improved the rate of growth or the incidence of gastro-intestinal disease in their series.

Clinical Investigation

The clinical observations reported here were undertaken in order to determine the effect of vitamin B₁