An Address ON

THE MANAGEMENT OF CASES OF ADVANCED HEART DISEASE.

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OF all classes of chronic disease there is none which calls in a more urgent manner for the skilful aid of the medical practitioner than heart disease in its advanced stages, when compensation has broken down and the patient has begun to suffer from heart failure, indicated by such symptoms as dropsy, dyspnoea, dyspepsia, insomnia, and cardialgia, to name only the more common troubles. Few men in general practice can be without one or more such patients requiring pretty constant attention, who are grateful for any suggestions which may alleviate the burden of their many distresses. In hospital practice we get a considerable amount of experience in the treatment of these cases; and we have the satisfaction of patching them up over and over again before the ultimate and inevitable end, so that there may be less presumption in venturing to express personal opinions upon the value of methods of treatment in this than in many other diseases in which our opportunities for drawing therapeutic conclusions are too narrow to justify confident assertions of their value. I lament the tendency in modern times to disregard tradition in treatment, and I regret that men of ripe experience do not publish the therapeutic conclusions at which they have arrived, possibly from the fear of being thought old-fashioned if unable to testify to the value of all the new remedies with which the profession is inundated.

I have carried out as many clinical experiments in therapeutics as any one with similar opportunities, and I know the great difficulty of the task, even when limited to investigations into the value of remedies which are reputed to produce effects not to be got from other means. If I am satisfied that the remedies I possess do what I want, I do not waste my time in trying a novelty which would be at best only a duplicate and not a real addition to my stock. By adhering to this rule I have put aside many new drugs which, for aught I know, are as good as those with which I am familiar, and upon whose action I rely. But I hope I have kept an open mind without prejudice against novelties because they are new, and have been ready to give a full trial to any suggestion that promises a fair prospect of effecting ends that I cannot otherwise obtain.

Professor Clifford Allbutt has complained of the way in which students at the final examinations write prescriptions, and two years ago he sent a circular to the medical schools asking that increased attention should be given to instruction in this subject. In my university the matter was referred to a Subcommittee of which I accepted the chairmanship, as I believed there was ground for the complaint, and I was ready to support any reasonable proposals to remove a decided defect in the results of modern medical education. Many of you know that at the examination of the Conjoint Board each candidate at the end of the clinical part of his examination is asked to write a prescription as an exercise, in order to show how far he is able to put his views respecting treatment upon paper in an intelligible form. It is ten years since I ceased to be one of the examiners of the Board, so that things may have improved, but nothing could be worse than they were, and if I may judge by our Birmingham students they are little better now. Prescriptions written at examinations are usually clumsy, often absurd, and frequently full of verbal and grammatical mistakes; but what strikes me most is that the remedies are seldom combined as one would see them in any hospital pharmacopoeia; and if the candidates are asked where they obtained such a prescription, they generally admit that they have invented it for the occasion—that is to say,

it is not the custom for students to learn a certain number of formulae by heart, which seems to me to be a great mistake. The result of our inquiry into the instruction in prescription writing was to show that it is full and complete, but that students do not take advantage of it in the way I suggest. I am in the habit of writing out prescriptions in full on the blackboard, and I ask my students to copy them, in the hope that they will learn them and use them until they can do better through their own experience, for nobody wishes that there should be finality in our methods of treatment, but only that the student at starting should use the knowledge and experience of his teachers and predecessors. If a young man goes into practice with no traditional knowledge of prescription writing, he is at the mercy of the druggists' circulars which pour in upon us with ready-made formulae with every morning's post; his treatment has no stable basis, and is inferior in form and in substance to that possessed by those men of a former generation whose principal professional instruction was received in a country surgery.

Dr. George W. Balfour of Edinburgh was one of the first physicians in this country to teach adequately the diagnosis and treatment of diseases of the heart. When I was his clinical clerk and resident physician he had his wards in the infirmary full of cases of heart disease, and there I laid the foundations of my knowledge of the subject-matter of this address. Unlike many of the eminent teachers of that day, he was no sceptic in regard to drugs, but erred rather on the side of faith. He had a remedy for each symptom, and, although subsequent experience has not enabled me to confirm all his conclusions, his practice had this good influence—that it gave me something to start with; and as I came to recognize the weak points in his treatment I endeavoured to fill the gaps by careful selection from the remedies which have been brought under my notice from time to time.

EXERCISE.

So long as a patient with heart disease is well enough to take exercise it is better that he should do so than be confined to bed. It may be important to arrange that he should live upon the ground floor of his house so as to have no stairs to climb, but he may still take a regular daily walk. He may walk up a gentle slope, but the incline must not be steep, and he must be warned under no circumstances to hurry.

The recuperative power possessed by a diseased heart varies within extremely wide limits, but depends chiefly upon the age of the patient and the general state of his health. All of us have seen remarkable recoveries from severe cardiac dropsy where the patient was neither old nor handicapped by diseases of other organs. The profession of the present day rightly appreciates the comparative unimportance of valvular defects, and recognizes that the efficiency of the heart depends upon the integrity or the recuperative power of its muscular substance; so long as this is vigorous or susceptible of healthy repair and growth, appropriate treatment may be followed by the happiest results, but when the healthy processes of normal nutrition are perverted or irreparable senile changes are present, the valvular defect exercises its mischievous action without any counterpoise, and great derangements of the circulation ensue unless we can diminish the work required from the weakened walls.

SCHOTT TREATMENT.

I have seen the best results in the treatment of weakened myocardium from the systematic use of the baths and exercises devised by the Brothers Schott of Nauheim, and now carried out successfully in many places in this country. Cheltenham seems to me admirably adapted as a centre for this treatment, for you have in the Pittville Springs water which, heated to the proper temperature, fulfils all the requirements of the baths, while nurses can be easily trained to perform the passive exercises. During the last ten years I have sent many cases to Buxton, where they have received all the benefit I desired from suitable baths and exercises, although the water at Buxton is prepared artificially, and in many respects Cheltenham has superior natural advantages. I attach no importance to the presence of free carbonic acid gas in the water, for at Nauheim the water used for the heart baths is drawn from a tank in which it is stored for a time

to allow the gas to evaporate, and it is only in the later stages, and by no means in all cases, that the Strombad is used, many patients disliking and even dreading its fierce rush, but if it is in any case desirable the gas can be easily generated and added to your water. The chief point in the Nauheim bath is the temperature, which should never exceed 95°, and be lowered while the duration of immersion is increased as the course proceeds.

It is unfortunate that the Schott treatment has suffered from being in the hands of persons whose erroneous methods and unreasonable pretensions have cast an undeserved slur upon a really valuable means of treatment. Not the least important element in its success is the necessity imposed on the patient to leave his home, his work, and the cares of his daily life, and devote himself entirely under medical direction to the business of recovery. I took some trouble ten years ago to show that as good results could be obtained by artificial baths in the General Hospital at Birmingham as at Nauheim, but I have invariably sent private patients to some pleasant health resort where the treatment is carried out. I do not know whether anything of the kind has been attempted here, but, if it has not, I hope some one will give it a fair trial. A sufficiently full account of the method is to be found in a paper published by me in the BRITISH MEDICAL JOURNAL for November 2nd, 1895.

REST.

Heart disease should be treated by rest in a more or less recumbent position (1) when there is a certain amount of dyspnoea present; (2) if walking brings on severe dyspnoea or pain; (3) should the state of the circulation be so bad as to cause danger of syncope.

The bed of a heart patient should be flat, not sagging in the middle, as is sometimes the case with modern chain mattresses; the slope should be downwards from the head towards the foot, which may be effected by putting blocks under the castors at the head of the bed, but in many cases the patient requires the support of a bed-rest. Orthopnoea indicates a serious lesion of the heart unless caused by some complication in the chest, such as pleural effusion. It may be impossible to make the patient comfortable in bed, and he must be allowed to sit in a chair with his legs extended and raised as much as is consistent with comfort. Heart-chairs, especially constructed to permit of being arranged at a comfortable angle for the body and lower extremities, can be purchased or hired, and add a good deal to the comfort of the last few months of what must often be at best a distressing struggle for life.

When dropsy is present and the patient is helpless he should be placed upon a water bed in order to relieve pressure and avoid bedsores. The legs should be covered with long woollen stockings, or, what is perhaps better and more easily adapted to their changing bulk, 4-in. flannel bandages should be rolled from the toes to above the knees. If before applying the bandage the limbs are elevated for a few minutes and rubbed towards the body, the oedema will diminish and the bandages will support the skin and keep the dropsy from returning. The bed-rest should be firm and flat not made of canvas or any stretching material, as it should give a firm support, and may be made sufficiently soft by pillows. A draw-sheet should be arranged in the bed and the parts of the body subjected to pressure rubbed with spirit lotion.

DIET.

Sufferers from advanced heart disease constantly complain of discomfort after taking food, which may be the result of several different conditions. In the first place, a badly acting heart may be embarrassed by the pressure of a stomach distended with food or gas or both, and to this cause are due the complaints of many patients. Secondly, heart disease is frequently associated with and probably causes chronic gastritis, to which pain, pyrosis, and other symptoms may be attributed. Lastly, and most serious of all, there is the cardiac oppression of toxi-alimentary origin which follows the ingestion of food.

It is therefore easy to understand why pure milk diet has attained such a high reputation in the treatment of serious cases of heart disease, for it fulfils all three indications; if given properly it avoids overloading the stomach, while it is a readily assimilable and unirritating nutri-

ment which contains a minimum of alimentary poison. But even milk may cause gastric embarrassment if given undiluted or too freely. It matters little what diluent is used—whether barley water, soda water, or Vichy water—but not more than 4 oz. should be within reach of the patient at one time, nor should this quantity be repeated in less than an hour, but this is a maximum amount, and it is well to begin with 1 oz. every hour. The addition of a small quantity of sodium citrate (gr. j to each oz. of milk), as suggested by Sir Almroth E. Wright, to prevent coagulation of the milk, may be tried. But in spite of all care in dilution and amount milk does not suit every one, nor is it necessary to restrict all cases of advanced heart disease to this monotonous diet. So long as we follow the principles that the meals must be small in bulk, composed of non-irritating and easily digestible food, containing a small quantity of proteid, a mixed diet is preferable. These indications are fulfilled by five small meals daily at intervals of about two and a half hours, avoiding the use of smoked and salted meats, cooked fats, fried and greasy dishes, uncooked fruits, raw vegetables, condiments and spices, and restricting the use of animal food to 4 oz. daily, which should be easily digestible, such as white fish, chicken, partridge, lamb, mutton, calves' head and feet, or sweetbreads. If the patient's teeth are defective, the meat must be minced or pounded, as there is no more frequent cause of indigestion than insufficient mastication.

Where there is dropsy it is claimed by some to indicate that the patient should be kept upon dry diet, or one in which the quantity of fluid is restricted to a minimum, but this is of doubtful advantage, and not always well borne; indeed, cases of cardiac dropsy may be treated quite successfully upon milk diet, and no theoretical considerations should be allowed to embarrass our decision as to the kind of food most suitable for our patients. Some do well with a good deal of milk, others not so well, just as we find this to be the case with patients who are suffering from gastritis without heart disease.

French physicians urge the absolute withdrawal of chloride of sodium from the diet in cases of dropsy. I have given this method a trial as it is easy to carry out and does no harm, the only difficulty being that as salt is contained in ordinary bread the baker must be asked to bake some for the patient without any, which I have always found him willing to do. I am not convinced of its importance, as there are so many other factors present in each case which may contribute to the result, but I intend to persevere with it.

Both tea and coffee, but especially tea, have a poisonous effect upon the heart in some persons, making its action intermittent and irregular, and even causing pain suggestive of angina; they must, therefore, be prescribed with caution in heart disease. As beverages we may give milk and water, or cocoa, or mineral table waters.

Alcohol should be used sparingly as an article of diet; it is unnecessary, and often does more harm than good. The popular notion that whisky aids digestion has little foundation in fact; where there is gastritis even diluted spirits do definite mischief, and, as alcohol in any shape is toxic, a small dose may cause dyspnoea or make the pulse irregular and weak for twenty-four hours afterwards. I have noticed this effect produced in cases of weak heart, slight exertion after taking alcohol being followed by dyspnoea with a fluttering irregular pulse.

The poisonous effect of tobacco is too well known for it to be necessary to insist upon the importance of forbidding its use. As a rule there is no difficulty, as the patients are too ill to care to smoke; but now and then we meet with an inveterate consumer of tobacco, either a smoker or snuff-taker, who objects to be deprived of it even on his deathbed. There should be no hesitation in pointing out that its use is injurious, as it not only weakens the muscular force of the heart but increases the arterial resistance, and is therefore doubly harmful.

HEART TONICS.

Among reputed heart tonics digitalis and its alkaloids hold the first place. In its various pharmaceutical forms it is a most trustworthy drug, and it is not quite obvious how it acquired the bad name that it seems to have borne in the first part of the last century. When I commenced practice it was common to meet men who considered it a dangerous cumulative poison, which in ordinary doses

was liable to cause unexpected and alarming symptoms. Dr. Balfour used to point out that when the infusion of the *Edinburgh Pharmacopoeia* was in use it was customary to give the equivalent of from 3 to 12 gr. of the leaves three times a day or more often. Dr. Blackall of Exeter, in his book on dropsies, published in the year 1813, wrote that the common people in his neighbourhood were in the habit of using very strong and copious infusions of digitalis made by throwing boiling water on the leaves, stem, and root, without any measure or weight; and it can be well understood that with such rude pharmacy accidents might happen. He recommends an infusion made with a drachm of the dried leaves to half a pint of boiling water, which is more than twice the strength of the present infusion, but the only inconvenience of which he complains is that it may "upset the stomach and cause so much disgust that there is difficulty in persuading patients to resume its use."

In the days preceding the publication of the *British Pharmacopoeia*, it is probable that a considerable source of inaccuracy in dosage arose from the unequal forms in which the medicine was dispensed and the extreme difficulty of calculating their relative strengths. All this has for us only a historical interest, as at the present time we are sure of getting accurately-made preparations, and we never have to complain, as Blackall did, of digitalis becoming inert from the "powder being kept in paper, or in a bottle which was often opened for use." The tincture is the preparation usually employed, the standard dose for an adult being 10 minims three times a day, in which amount it is perfectly safe and manageable, but if given more frequently its cumulative effect may be produced, the pulse dropping suddenly, so that this dose should not be exceeded unless the case is carefully watched. Nor do I think there is much reason to complain that these doses irritate the stomach unless marked gastritis is present, when it is better to choose some other method of administration, as in pills containing the powdered leaves; but the best form in these circumstances is Nativelle's granules of digitaline, which are free from any irritating action on the stomach, and are therapeutically most efficient.

The general indication for the use of digitalis is a weak, rapid, and irregular pulse, or the presence of oedema. The much-debated question of its utility in aortic disease has not been settled by Foster's discovery that when it slows the heart the prolongation affects the diastolic period more than the rest of the cardiac cycle, as when the heart's action is slowed from any cause whatever the diastolic period is lengthened disproportionately. In all cases of aortic disease the pulse should beat more quickly than normal in order to keep up the circulation; but so long as digitalis does not reduce its rate below 80, the good effects are as apparent in aortic disease as in other conditions.

Strophanthus has the same action as digitalis, but is not more manageable or trustworthy. On its first introduction I used various preparations of it with unsatisfactory results. Professor Fraser kindly sent me a small quantity of a tincture prepared by himself which acted very well, but was not enough for extended operations. On his recommendation I procured Duncan and Flockhart's tincture, but this proved to be no better than the others. I then obtained a sample of *strophanthus* seed, and sent it to Professor Fraser, who pronounced it to be not *Strophanthus hispidus*, but some other species, yet I was assured that it was the only seed at that time in the English market, from which all the tinctures in use were prepared! This led me to give it up, but some years afterwards I had all the specimens in the market re-examined, and all were genuine and active. I use it occasionally when digitalis fails, but I know no indication for giving preference to it.

I have used the tincture of convallaria in advanced cases of aortic disease, giving it in 15-minim doses in combination with caffeine or theobromine, in which form it has answered my purpose very well, but I cannot speak of its action by itself.

After digitalis the most useful cardiac tonics are caffeine and theobromine, whose chemical composition and therapeutic action are nearly identical. Caffeine citrate in 5-gr. doses may be kept in solution by adding a little citric acid, but theobromine in the proprietary form of diuretin—a double salicylate combined with sodium, of

which the dose is 10 gr.—has the advantage of being soluble, while a similar double salt of caffeine prepared for me did not possess this useful property. Both are good stimulants to the heart and also true diuretics—that is to say, they act not merely by increasing the blood pressure in the kidney, but by stimulating its water-secreting apparatus. Of their value in combination with digitalis I have no doubt.

Nux vomica and its alkaloid strychnine are powerful heart tonics, especially in the form of strychnine injections, which should not be postponed until the patient is *in extremis*. These injections will relieve heart pain when other remedies have failed, and their use can be combined with that of other cardiac tonics given by the mouth. The usual dose is 5 minims, to be injected every four hours, but this quantity should be increased and the action pushed in desperate conditions, adding 1 minim at a time to the quantity and diminishing the interval to three or two hours.

VASCULO-DEPRESSOR DRUGS.

Every one is well acquainted with the value of heart tonics, and employs them more or less extensively, but I am not so sure that a sufficient use is made of the vascular depressants, which are of great utility in the management of advanced cases where the heart seems no longer able to answer to the whip. They act by relaxing the peripheral arterioles, and by lowering the blood pressure they lighten the burden the heart has to bear. Among the best known of these drugs are amyl nitrite, ethyl nitrite, sodium nitrite, glyceryl trinitrate or nitro-glycerine, erythrol tetranitrate, mercury in various forms, and iodide of potassium. Ethyl nitrite has long been familiar, as it is contained in sweet spirits of nitre, but is unstable, and although the late Professor Leech of Manchester endeavoured to bring it into favour it has not proved satisfactory; amyl nitrite is useful, but has obvious disadvantages in certain cases; nitro-glycerine in 1 per cent. solution is active, safe, easy to administer, and can be dosed to the requirements of each patient; nitrite of sodium has not given me equally good results, but all three are very transient in their effects, hence they are more valuable for removing pain than for giving permanent relief to the heart. Nitro-glycerine has afforded me valuable assistance in the management of advanced cases of heart disease where there has been oppression or pain suggesting angina pectoris, my patients being instructed to carry a small bottle containing one or two minims of the solution made up to a teaspoonful dose, which they take when the distress comes on. I prefer this solution to the chocolate tablets. Some years ago a patient was recommended by the late Sir Andrew Clark to use these tablets, but did not experience the desired relief, so one day I tested them on myself; one tablet produced no effect, so I followed it by a second and a third; in a short time all three took effect, but this is not what we want in order to help a patient taken suddenly with oppression or pain at the heart.

Erythrol tetranitrate is the drug on which I now rely to produce a permanent unloading of the weight on the heart. It was brought to notice by Professor Bradbury's Bradshaw Lecture delivered in 1895, in which he showed that the lowering of the pulse tension resulting from a single dose lasts fully four hours. Of the truth of this observation any one can convince himself if he will take the trouble to make a series of sphygmographic tracings before and after administering the drug. My house-physician in 1895, Dr. John Stead of Staunton-on-Wye, Herefordshire, took a number of tracings to illustrate this. Since then I have used it regularly in hospital and private practice, but it is in hospital that I have most opportunity for watching its effects, and I am convinced that it can afford relief to patients who derive no benefit from other cardiac remedies.

The usual dose of the tetranitrate is $\frac{1}{2}$ gr. in a tablet of Burroughs and Wellcome's, which I prefer; it should be given every four hours while the patient is awake; but it may cause headache occasionally, very rarely so severe that the drug has to be stopped. I combine it sometimes with Nativelle's digitaline, giving the drugs alternately with four hours' interval between the doses of each.

The value of mercury as a vascular depressant is maintained by some authorities, but its action seems to be limited to its power of getting rid of those alimentary poisons which set up vasomotor spasm. Professor

Dieulafoy treats chronic disease of the heart and great vessels by hypodermic injections of a solution of biniodide of mercury. After hearing his clinical lecture (see BRITISH MEDICAL JOURNAL, 1905, vol. i, p. 1337) I gave his method a trial but saw no good results, while the injections gave rise to much local pain and frequently to suppuration, so that I soon abandoned its use. I suppose we all use Baillie's pill (the combination of digitalis, squill, and blue pill) in some forms of cardiac dropsy, for which it possesses an established and well-founded reputation, but I do not know that its effect is in any degree attributable to the action of the mercury it contains on the vascular system. Iodide of potassium is frequently used in combination with other cardiac remedies, less often by itself; its utility is certainly not limited to cases of supposed syphilitic aortitis, but depends on its action as a vascular depressant.

Belladonna is a drug in which I have no great confidence in the treatment of heart disease, but this may be because I have not learnt the proper indications for its use. Belladonna plasters apparently relieve some kinds of heart pain, but they are dirty, unpleasant things, which interfere with auscultation and are only fit for out-patients.

BLEEDING AND LEECHING.

Bleeding from the arm and leeching the precordia are means adopted in cases where there is evidence of marked engorgement of the right side of the heart. Bleeding is the most speedy of all for relieving the heart, but is one which cannot be repeated except at comparatively long intervals; while its effects are prompt they do not last, and the danger is liable to recur. The results are striking, and death has often been postponed by timely blood-letting, but the conditions are generally unfavourable to complete recovery.

TAPPING.

When the belly is full of fluid it is better to tap than to waste time with drugs, which do not act so long as the excessive pressure within the abdomen is maintained. Tap with a good-sized trocar in the middle line midway between the umbilicus and the pubes, the patient being seated unless the condition is very bad, when I have a recumbent patient tapped in the flank, but the opposite side should be raised slightly by means of a pillow so as to cause the fluid to flow towards the opening. As the fluid is withdrawn a broad four-tailed flannel bandage should be drawn firmly round the abdomen so as to support its walls and after the operation the ends should be crossed and fastened securely with safety pins. Tapping the legs is seldom necessary or desirable, but occasionally Southey's tubes have proved useful. I do not like to make incisions and leave the legs to drain, as there is always danger of the wounds becoming infected.

PURGATIVES.

The judicious use of purgatives is of the greatest service in the treatment of cardiac dropsy, but their action needs watching. Of jalap, scammony, and elaterium, the last is the best; I give the eighth of a grain twice a day, with the best results. When I was house-physician at the Royal Hospital for Diseases of the Chest in the City Road, a patient was admitted with cardiac dropsy who had been discharged unrelieved from St. Bartholomew's Hospital, and whose case showed no signs of improvement under the usual treatment by diuretics. We gave him elaterium, carefully watching its effects, and had the satisfaction of seeing him leave the hospital quite cured of his dropsy. Since that time I have often repeated this experience and can recommend the remedy with confidence.

INHALATION OF OXYGEN.

The value of oxygen administered by inhalation in the treatment of heart disease may well be doubted, and in my experience it is small. It may be ordered for patients who are in a hopeless condition to satisfy the desire of the friends that something should be tried, but the difficulty being not to get air or oxygen into the lungs but to carry on the pulmonary circulation with greater rapidity, no advantage accrues to the patient from a higher proportion of oxygen in the air inhaled, as only a definite amount of oxygen can be taken up by the blood, and this is determined not by the quantity present but by the state of the circulation.

HYPNOTICS.

One of the least tractable symptoms of advanced heart disease is insomnia, with which are often associated nocturnal delirium and hallucinations of the special senses. The patient sits up in bed and asks repeatedly to be told where he is; he drops asleep for a few seconds, reopens his eyes wearily and wants to know who called him, or sees in the hospital ward the familiar objects and faces of his own home and takes the nurse to be a member of his family. These hallucinations are transitory, the patient recognizes his mistake and apologizes, but repeats it in the course of a few minutes. Such broken nights are distressing to watch, and must be infinitely wearisome to the patient, but the difficulty of procuring sleep is attested by the number of hypnotics which during the last thirty years have been introduced with the special recommendation that they are of value in the insomnia of heart disease.

It is undesirable to give chloral, which depresses the heart and has even caused death where there was no known heart disease; opium and its preparations, although of the greatest use where sleep is urgently needed, cannot be employed night after night without deranging digestion, diminishing appetite, and causing constipation, and may even cause grave danger where the disease is complicated by an affection of the kidneys. Nevertheless, this evil being avoided, the readiest and most effectual remedy is a hypodermic injection of morphine, but where some means have to be used night after night we must seek for a drug which has fewer disadvantages attending its persistent use. At the present time there is a great choice of hypnotics. Paraldehyde, chloralamide, urethane, sulphonal, trional, and veronal have been especially recommended for cardiac insomnia, and of these paraldehyde, chloralamide, trional, and veronal have proved the best. Veronal is the last comer, and therefore I hesitate to praise it as much as it seems to deserve from the experience I have had of it during the last two years, as new remedies, like new brooms, lose their efficiency as time goes on, yet so far veronal has served me well. Its dose is only 7 gr., so that it can be easily administered in a tablet, while if that quantity prove insufficient it may be repeated at the end of two hours. Its effects are more certain than those of either trional or sulphonal, while it is free from the disagreeable taste of paraldehyde, which is refused by many patients even when it makes them sleep. The objectionable taste of paraldehyde is not altogether got over by giving it in capsules, as it has the disagreeable property of giving rise to eructations charged with its nauseous flavour.

Chloralamide is not a drug of which I have had much experience in these cases, mainly because I could not divest myself of the fear that it is not quite safe.

If in most cases it is possible to procure bodily rest for our patients, it may be more difficult to secure them mental repose, which may depend upon temperament or circumstances beyond our control, but is not the less essential to success, for a restless, irritable patient robs himself of half his chances of life. If there be some such, there are, however, many who bear their troubles with heroic fortitude, and pass bravely out of this world into the next.

We do not dispute the truth of the adage, *Contra malum mortis non est medicamen in hortis*, but while we possess the means to prolong life, relieve suffering, and diminish distress, it is our duty to do all these three things to the best of our ability.

DR. LUDWIG MOND and his son, Mr. Robert Mond, have presented to the Infant's Hospital, established in Hampstead in 1903, a site in Vincent Square, Westminster, upon which a new hospital will be erected. It will provide cots for some fifty or more infants, together with accommodation for the nursing staff, pathological laboratories, lecture theatre, etc. The plans prepared by Messrs. Read and Macdonald include a roof garden, and special attention will be given to the admission of fresh air and sunlight to the wards. The generous donors have laid stress on the importance of using the hospital not only for the saving of infant life, but also for the scientific study of the problems connected therewith, and the prosecution of scientific research.

The late Mrs. Luch Amelia Hills, of Littledean, Great Berkhamsted, whose will has now been proved, bequeathed £3,000 to St. Bartholomew's Hospital in memory of her late father.