TWO HARVEIAN LECTURES

ON

BRIGHT'S DISEASE AND ITS TREATMENT:

CONSIDERED MAINLY IN RELATION WITH ARTERIAL
TENSION FROM BLOOD-CONTAMINATION.*Delivered before the Harveian Society of London, November 1875.*

BY

THE LATE FRANCIS SIBSON, M.D., D.C.L., F.R.C.P., F.R.S.,

Consulting Physician to St. Mary's Hospital; Vice-President
of the British Medical Association; etc.LECTURE II.—*Concluded.*

THE employment of narcotics in any form in cases of Bright's disease directly adds poison to poison of the like kind, and narcotics are therefore to be strenuously forbidden in every case of Bright's disease. This axiom does not rest upon physiological considerations only, which, if rightly interpreted, never can lead us wrong, and are therefore the true peculiar guide in the treatment of disease; for we have also direct evidence of the deadly effect of narcotics in Bright's disease. Death has occurred again and again from the subcutaneous injection of moderate doses of morphia in those affected with Bright's disease. I have not actually seen such a case, but I became painfully familiar with one of them in which death followed the injection of a moderate dose of morphia, and in which very disagreeable reproaches on the medical man were the result of its fatal employment. The poison of Bright's disease, *plus* a very small dose of the poison of morphia, was sufficient to cause death. Here a small dose of the secondary narcotic poison exercised a multiplying influence on the effect of the primary narcotic poison of Bright's disease, already circulating in the blood. These cases test the depth and diffusion of the poison of Bright's disease even when that poison fails to show itself, the patient having become acclimated to it and tolerant of its presence. There is another series of deadly cases in which the employment of opium has again and again produced death in those with undiscovered Bright's disease. I allude to the numerous instances of delirium tremens that have died from opium, many of which cases had unknown Bright's disease. It is a question whether opium ought ever to be employed in delirium tremens, although it has often, as we all of us have seen, charmed away that disease. It ought, however, never to be employed when delirium tremens is associated with Bright's disease, and before the drug is given in such cases the absence of Bright's disease ought to be made certain.

Opium or morphia then, in even the smallest doses, ought never to be given in Bright's disease, whatever the form, acute or chronic, fatty or granular. The serious question, however, arises, ought every form of narcotic to be forbidden in Bright's disease? I unhesitatingly say, Yes; they ought all to be forbidden, including chloral and chloroform. The least dangerous of them is perhaps the henbane, belladonna, and stramonium series, but even those I would forbid. Conium scarcely is a narcotic in the sense of disturbing the intellect and suspending consciousness, which the pure narcotics do. Chloral is often employed in those distressing cases of Bright's disease with restlessness, in which the physician is too apt to feel compelled to *do something*. That is, in those cases, a perilous, often a fatal motive, and we cannot too strongly exercise our powers of control, self-discipline, and resistance to entreaty, so that our knowledge and reason may stand firm and untrammelled in the midst of clamour. Giving way under these circumstances is almost, perhaps quite, a criminal act of weakness; and, if death result from it, those very persons who have overpowered the judgment of the physician by their demands for the relief of their friends are the first to complain.

Chloral is a very tempting narcotic in these cases, for it suspends consciousness and suffering, and, after a time, the patient awakes refreshed and thankful. He does not, however, always do so, and I have seen the fatal accumulation of uræmic poisoning follow the use of this powerful drug. Chloral, in a dose that can prove efficient and produce unconsciousness, is far too near upon actual death for me to like its frequent employment. Well tested, its use is often invaluable, and we are to measure the power of the drug with a knowledge of its inner circle of safety with scientific confidence. We must not, however, push it too near to the margin of possible death, and that margin is very close indeed upon the doses of this drug often given

with resulting safety. One death from its use is not, however, repaid by the one hundred recoveries that may follow its employment.

Chlorodyne, which is a nostrum, ought never to have been employed by our profession, which honourably forbids the use of secret drugs, but does not perhaps, in these days, too honourably adhere to this golden rule. This question, however, ought to be answered: What are we to give in case of extreme restlessness in Bright's disease? We must not forget that these cases of restlessness are on the verge of sopor and coma, of which it is often the premonitory symptom. The bromides of ammonium and potassium, and Hofmann's anodyne ether, and a few drops of ether, may safely be inhaled in these cases, as well as in the cases with excessive distress of breathing. The bromide may be pushed to large and extreme doses, and their effect ought to be carefully watched; so that if drowsiness be induced by it, in addition to the poison of the disease, iodide of potassium, coffee, and rousing and antinarcotic means may be freely resorted to.

I now come, Mr. President, to the last points in the treatment of Bright's disease that it falls to me to bring before you. These points are (1) the lifting the patient above his disease by the healthy and health-seeking exercises of every-day life, and by means that, without expelling the poison, arouse the nervous system to resist the narcotic action of the poison; (2) the treatment of the distressing respiration, alternately suspended and violently accelerated in renewed cycles of a minute each; and (3) the treatment of the drowsiness, sopor, coma, and convulsions that come into play towards the ripening period, often the fatal close of the disease.

In acute Bright's disease, especially during its early period, bed is often needful, with its rest, its comfort, its sudorific treatment, and care. In its later stages, and during the transition period from the acute to the fatty kidney, the bed is often softening, depressing, and injurious; and dress, movement in a warm room, and the pleasant intercourse of social life, often produce the best effects on the general condition of the patient. I recollect a sagacious passage of Dr. Wilks in one of his valuable writings, in which he speaks of the mischief done in these cases by remaining too long in bed. When the patient lies there, resting, so to speak, in every part of him, his muscles are unused, his tissues take in an unrenewed dropsical serum, his circulation is entirely confided to the heart, that receives no help from the muscular locomotion, varied posture, activity, and quickened breathing, that necessarily come into play when the patient leaves the monotonous apathy of bed. In that prone state of listless half-life, the muscles and all the structures degenerate; the brain and mind relapse into weariness and disuse; the nerves cease to be channels of the will, and so the ready transmission of the currents becomes clogged; the red blood, like the muscle, not being in demand, is not replaced, demand and supply, as in commercial life, waiting upon each other; every internal organ becomes indifferent to, and inefficient in, its work; and the skin, with its vast meshes of secreting, reflex, and warmth-giving means, becomes flaccid, pallid, waxy, watery, and lifeless. Intelligence is blunted, the eye and ear become dull, and all the faculties of life dwindle. These ill effects must follow if a patient rest in the horizontal disuse and decay of all his faculties. Place him in his chair, and on his feet, clothed, and in his right mind, interested in all that is going on, with an awakening activity in all his limbs, and with fresh demands of life rousing up every organ to a higher life, the diseased organ itself begins to enjoy more of its proper functions, and the uninjured parts of these organs resume the exercise of their powers and regain their health.

When treating cases of Bright's disease, we have to bear in mind that, besides taking steps to expel the poison and care not to add any fresh poison similar in character or effect, we have to treat a patient whose blood-tissues and whole frame are charged with a narcotic poison. This poison varies from day to day in quantity, but it is always present. In treating these cases, whether the amount and effect of the poison be so great as to cause coma, or so slight as to show no symptoms of illness, we have to treat the case so that the nervous system and whole body are trained to rise superior to the poison, just as in treating poison from opium we rouse the patients by every means in our power, so that they thus become conscious, and exercise their mind and body in spite of the poison. We duck them with water, spur them with electricity, call up their attention, walk them about, give them coffee, vary the stimulants, applying one after another, and rouse them so that, in spite of the poison circulating in their blood, their nervous system and all the power of their body rise above the poison, so as to resist its immediate effect and to give time for its elimination. Leave those patients inanimate and unconscious to themselves, and their fate is sealed; rouse them, and they generally recover, even if no part of the poison have been removed, though the removal of the poison is an essential part of the treatment. We ought to treat all cases

TABLE I.—Cases of Post-Scarlatinal Bright's Disease.

Age.	Sex.	Kidneys, weight.	HEART.				Aorta.	Arteries.	Pericardium.	Duration of Disease before Death.
			Weight.	Size and hypertrophy of left ventricle.	Condition of Valves.					
					Aortic.	Mitral.				
8	F.	12½ oz.	6 oz.	Healthy	Healthy	Healthy	....	....	Slight pericarditis.	16 weeks (scarlet fever)
8	F.	11½ oz.	4½ oz.	Left ventricle ½ in. thick	Thickened as in senile condition	Thickened with a small vegetation	Some atheroma just above valves.	Thickening and rigidity of left middle cerebral artery	....	Dropsy (2 weeks)
9	F.	10½ oz.	7½ oz.	Heart small; no hypertrophy	....	....	....	....	....	21 weeks (scar. fever); great anasarca; convulsions
29	M.	16 oz.	13½ oz.	All walls thick; not left ventricle in excess.	Healthy	Healthy	....	....	Healthy	11 weeks (scarlet fever); lobular pneumonia
13	F.	..	..	Moderate size.	Commencing atheroma	Opacity of flaps	....	....	....	....
3	F.	3½ oz.	2 oz.	Natural	....	....	....	....	....	....

TABLE II.—Cases of Acute Bright's Disease (not Scarlatinal).

No.	Age.	Sex.	Weight of Kidneys.	Weight of Heart.	Size and Hypertrophy of Left Ventricle.	Condition of Valves.		Aorta.	Arteries.	Pericardium.	Other Complications.
						Aortic.	Mitral.				
1	30	M.	..	12 oz.	Left ventricle ½ to ¾ in. thick	Healthy	Healthy	..	..	..	Ascites
2	35	M.	17 oz.	19 oz.	Walls thick.	Healthy	Healthy	Healthy	Healthy	Acute pericarditis	Pleurisy and lobular pneumonia; Convulsions
3	41	M.	14 oz.	Not noted	Left ventricle thick	Healthy	Healthy	..	..	..	Broncho-pneumonia; post-scarlatinal
4	19	M.	16 oz.	15½ oz.	Hypertrophy of left ventricle wall ¾ in. thick.	Healthy	Healthy	..	Healthy	..	Convulsions
5	50	M.	19 oz.	20 oz.	Cavities dilated; left ventricle thick	Healthy	Healthy	..	..	..	Pleurisy (left)
6	14	F.	9½ oz.	15½ oz.	Left ventricle hypertrophied.	Very thick with vegetations; regurgitation	Healthy	Healthy	..	..	Pneumonia
7	23	F.	18 oz.	27 oz.	..	..	..	..	..	Acute pericarditis	Pleural hæmorrhage; much ascites
8	24	F.	20 oz.	11 oz.	Left ventricle hypertrophied, ¾ in. thick	Healthy	Healthy	Slight atheroma at commencement	..	..	Acute peritonitis
9	40	F.	15 oz.	12 oz.	..	..	..	..	..	..	Double pleurisy—pulmonary apoplexy
10	33	F.	12½ oz.	20 oz.	Hypertrophy of left ventricle; fatty degeneration	Healthy	Healthy	..	..	..	

Note.—Cases Nos. 6 and 10 are a little doubtful; should probably be classed as acute passing into the fatty stage.

TABLE III.—Cases of Bright's Disease Examined after Death in St. Mary's Hospital during the Years 1851-1869.

Column a. Percentage of Cases in which the Size of the heart was noted. b. Cases of Wasting Disease or Emaciation. c. Cases with Valvular or other Disease of Heart. d. Cases with Atheroma of Valves of Aorta. Valves Competent.

	TOTAL NO. OF CASES.					ACUTE BRIGHT'S DISEASE.										WITH FATTY KIDNEY.					CASES WITH LARDACEOUS KIDNEY.				
						Not from Scarlet Fever.					From Scarlet Fever.					Large White Kidney.									
	No.	a.	b.	c.	d.	No.	a.	b.	c.	d.	No.	a.	b.	c.	d.	No.	a.	b.	c.	d.	No.	a.	b.	c.	d.
Heart small	27	12	25	(?)	(?)	0	..	..	..	..	0	..	..	..	..	15	28	13	0	2	3	21	3	1	1
Heart of natural size	67	29	45	..	..	2	22	1	..	..	2	40	..	..	..	17	31	12	..	1	7	50	7	..	1
Heart rather large	47	18	11	..	..	3	33	..	..	..	3	60	..	..	..	8	15	1	2	2	1	7	1	..	..
Heart large, or very large, the left ventricle being generally hypertrophied	107	41	23	..	..	4	44	..	..	..	0	..	..	..	..	14	26	0	7	4	3	21	0	1	1
Total cases in which size of heart was noted	248	..	..	..	..	9	..	..	..	..	5	..	..	..	..	54	..	..	..	..	14	..	..	..	..
Size of the heart not noted	29	..	..	..	..	2	..	..	..	..	..	..	..	..	..	4	..	..	..	..	1	..	..	..	..
Total number of cases	277	..	..	..	..	11	..	..	..	..	5	..	..	..	..	58	..	..	..	..	15	..	..	..	..

	CONTRACTED GRANULAR KIDNEY.					GRANULAR KIDNEY.					DISEASE OF KIDNEY.					CALCULUS IN KIDNEY, PELVIS, OR URETER.				
						Of natural and large size.					Chiefly suppurative, from affection of Bladder, Prostate, or Urethra.					Affection of Kidney not suppurative.				
	No.	a.	b.	c.	d.	No.	a.	b.	c.	d.	No.	a.	b.	c.	d.	No.	a.	b.	c.	d.
Heart small	4	39	4	0	0	4	3	4	0	0	3	23.0	3	(?)	(?)	2	25	2	(?)	(?)
Heart of natural size	25	21	18	3	8	29	22	22	3	8	7	54.0	4	..	..	1	12.5	..	..	..
Heart rather large	20	19	6	4	4	23	18	8	4	6	2	15.6	1	..	..	5	62.5	..	..	..
Heart large, or very large, the left ventricle being generally hypertrophied	60	56	21	18	20	75	57	23	24	26	13	8.0	..	..	..	0	..	..	..	..
Total cases in which size of heart was noted	106	..	..	..	..	131	..	..	..	..	13	..	..	..	..	8	..	..	..	..
Size of the heart not noted	11	..	..	..	..	14	..	..	..	..	1	..	..	..	..	1	..	..	..	..
Total number of cases	120	..	..	..	..	145	..	..	..	..	14	..	..	..	..	9	..	..	..	..

of Bright's disease in that spirit, though the measures must be graduated according to the depth and amount of the poison. Following out this principle, these patients ought to be roused by means of strong coffee or tea; interested by the society of friends and the business of everyday life; directed to take exercise briskly, and, so as to stir their circulation, keep themselves warm and earn their digestion, at the same time, that they avoid fatigue and exhaustion. They ought, indeed, to live, so to speak, within the income of their organs; but they ought, at the same time, to live almost up to that income. The many exercises of life increase the powers of life, just as the oarsman or the mountaineer, by steady training, from being out of condition, weak, and capable only of a spurt, and incapable of long-sustained exertion, acquires, in a very few days, such powers of exertion and endurance that he can last through the race, walk, and climb and descend for eighteen hours, and have strength to spare at the end of the day; so the patient, with chronic Bright's disease, by steadily increasing his exercise in the varied pursuits of life, daily gains power and rises above his disease. Although these very exercises lessen the poison, by stimulating all the organs of excretion, yet the poison is still there; but, just as the patient poisoned with opium is roused to resist its effects, so the patient poisoned under influence of Bright's disease is roused to resist its effects. In the same way that the muscles and chest and heart are enlarged by steady exercise, so the healthy portions of the diseased kidney are enlarged so as to increase and bring into play the powers latent and otherwise of this organ. Every organ has within it a reserved force very much greater than the force used in the ordinary quiet doings of still life. Thus I found, by exact experiments twenty-six years ago, that I breathed sixteen times as much air when I ran at the top of my speed, or rather just after it, as when I lay still in my bed. This experiment, published by me, is quoted and confirmed by Dr. Edward Smith. My lungs thus had a reserved force that was sixteen times as great during their maximum as during their minimum labours. Every organ has a like reserved force, the kidneys included, though the extent of such force is unknown. When these organs are diseased in part, they are still healthy in part, unless the destruction of the surrounding structure is complete. When the exercises of life increase and the general health improves, the kidneys improve under the effect of the general improvement. Thus cases of Bright's disease may improve indefinitely, and, leading a healthy life, be practically healthy, though these kidneys are crippled and have lost much of their reserved force; just as the one lung of many a patient with empyema is crippled, even after health is restored. When the other lung plays freely, it is developed to compensate somewhat for the loss. The reserved force, however, of the lung is lessened, and all the organs of the body and the heart in particular moderate their exertion; and all the members of the body balance themselves in harmony with the crippled organ, which becomes the lowered key-note of the whole frame. I once, when in Switzerland, with my whole thoughts and work centred on the country and free from the medical mind, awoke with this axiom in my mind and almost on my tongue: "Health is not the mere soundness of any one organ, but the healthy balance of the whole"; and so the balance of the general health is in keeping with the lower or higher power of the kidney. When the respiration is greatly distressed and suspended by turns in Bright's disease, the proper treatment is steadily to eliminate the poison, and, at the same time, to rouse the powers, either by a small quantity of tea, strong coffee, or whisky; by stimulants externally; and by maintaining the power by means of iron and food; by practising, indeed, in a conciliative manner, the plans that experience and physiological reasoning have pointed out to be the best and soundest for the general treatment of the disease, supplemented by such means as the nature of the case may expressly suggest. These cases are very formidable, and generally die; but not unfrequently, as in the cases I named to you, the patients recover from the emergency, and even live for years. When coma and sopor are present, the hot-air bath and external stimulants, the strongest coffee, and a treatment analogous to that of deep opium-poisoning, but differing according to the necessities of the case, must be pursued; and this sometimes succeeds.

THE St. Alban's Rural Sanitary Authority propose to appoint Dr. Saunders, the Medical Officer of Health for the adjoining combined districts, as Medical Officer of Health (and Public Analyst) for their district also, instead of the union medical officers, as at present.

AT Cannock, a letter has been received by the summoning officer from the Local Government Board, stating that they are willing to issue an order forming the parish into a Local Government District of three wards, viz., Hednesford, Chads Moor, and Cannock; the Board to consist of twelve members, four from each ward.

SOME REMARKS ON THE AFTER-TREATMENT OF EXCISION OF THE HIP-JOINT.

By SURGEON-MAJOR J. H. PORTER,
Assistant-Professor of Military Surgery, Army Medical School, Netley.

GUNSHOT-WOUNDS and diseases of the hip-joint, for which the operation of excision has been performed, present to the surgeon difficulties in the after-treatment which are seldom met with in other surgical operations.

The patient is utterly helpless; he is very likely prostrated with disease or by the wound, or the operation itself may have produced great exhaustion; he may be bound by splints or appliances considered necessary for promoting extension or counterextension; and the fact of his lying in this helpless condition is apt to bring about a series of complications, owing to the formation of bedsores, which in many instances are stated to have been the cause of patients succumbing; besides these, the surgeon has to contend with the copious discharge from the seat of wound, or that made by the operation, saturating the dressings, which, if not promptly removed, will become offensive, and may give rise to the formation of extensive abscesses or other complications. There is also the necessity for rearranging the sheeting and bedding, and for removing excreta by suitable utensils; and, at the same time, it is absolutely necessary to maintain the limb at perfect rest.

In investigating the experience of others with regard to how these arrangements have been carried out, we find that but little has been recorded; at the same time, nearly all recognise the importance of strict attention to the after-treatment, but lay greater stress on the formation and application of splints for keeping the limb in a proper position. Professor Volkmann of Halle observes that, if a mattress or something could be invented by which the cleansing of the wound in these cases, the defæcation of the patient, and, at the same time, his utter immobility, could be maintained, it would be a great boon. The same authority remarks: "With regard to the great mortality after the operation of excision of the hip-joint, much has depended upon the want of care in the after-treatment. Three times I resorted to excision; twice after the battles of Beaumont and Sedan, once in Dijon; all these patients died; two, as I believe, principally in consequence of bedsores." And, as a reason for the fatal issue of most of the cases which had submitted to excision of the hip-joint during the late war, he notices the impossibility of bestowing upon the sufferers that care which is necessary after such an operation. "As long," he says, "as we are not able to put these patients on good beds, in order to place the limb in proper position, we dare not expect success." "No excision," he continues, "in fact, scarcely an operation exists which requires such care and unwearied patience in the after-treatment as excision of the hip-joint. The excised joint must be kept at rest, and the patient must be so laid that the wound at the hip is not pressed and the surgeon can have free access to it; that the dressing and cleansing of the same may be accomplished without moving the patient."

Dr. G. A. Otis, of the American army, in his valuable classical work on *Wounds of the Hip-Joint*, observes that, though the method of operating in excision is important, it is far less essential than the after-treatment.

Baron von Langenbeck, in remarking on the difficulties in the after-treatment in military surgery, says: "To preserve a comfortable position for the patient, to prevent the occurrence of decubitus, and to enable us to give proper attention to the wound, bedsteads and the best mattresses are necessary."

Keeping such observations in view, and bearing in mind that the results of exarticulation at the hip-joint for gunshot-wounds have been very unsatisfactory, and that the best prospects of saving life after such injuries rest between conservative treatment and the operation of excision, for the success of which much depends on the after-treatment, one feels bound, when an opportunity offers, to try to devise some method whereby more happy results may be brought about.

On a recent occasion, I had under my care a case of disease of the hip-joint, for which I performed excision, and for which I designed a stretcher and bed for the after-treatment, as represented in the illustrations 1, 2, and 3,* which answered most satisfactorily, and which, with a little ingenuity, might be extemporised on service in the field.

* Illustrations Nos. 1, 2, and 3, are from drawings kindly taken by Professor J. D. Macdonald, F.R.S., R.N.