thigh. "Look upon this picture (Fig. 63) and upon this" (Fig. 64); "look upon this picture (Fig. 65) and upon this" (Fig. 61), or this (Fig. 62), or this (Fig. 64), and I ask your verdict!

[*Note.*—The drawings for the illustrations of these Lectures have been made by Dr. Westmacott, so well known for his skill in this department, and by Mr. R. Hart, whose talents have often been displayed in the pages of this journal.]

HEPATIC DISEASES IN THE EAST INDIES: HEPATITIS.

BY SIR J. RANALD MARTIN, C.B.,
PHYSICIAN TO THE COUNCIL OF INDIA.

IN considering the various forms of hepatic inflammation as they prevail in the East Indies, but more especially in Bengal, where my experience with Europeans chiefly lay, we have, for practical purposes, to determine whether the inflammation be confined to the peritoneal covering of the organ or to the parenchyma; and then, in either case, we have to examine the probable extent of the morbid change in progress. The first form, while it is by much the less frequent, is by far the most easily detected, whether the disease be confined to a lesser or greater extent of the periphery, or whether along with it a certain portion of the substance of the liver be involved as well. It is seldom that hepatitis includes at once either the entire of the capsule or the entire of the parenchyma of the liver, various circumscribed portions of either, or of both together, being more usually affected by the disease.

The form and character of acute inflammation of the liver as it prevails throughout India differ materially according to the region, the immediate locality, and the climate; the suppurative hepatitis prevalent in Bengal being, in common with the fevers and dysenteries of that great province, by much the most dangerous. In Madras hepatitis is said to be more frequent, while in Bengal it is more fatal. The surgeon will therefore have to consider with care the general climate, that of the particular locality, the age and constitution, the previous habits and course of service, indeed all the hygienic conditions of the soldier, before proceeding to treat him; and in each individual case he must be guided more by a well-weighed consideration and comparison of its assembled essential symptoms, than by the presence or absence of any one or two of them. In this disease, as in all others, there is no precise uniformity of symptoms. Where the covering membrane of the liver is the part chiefly inflamed (sero hepatitis), the sufferings of the patient are sufficiently declared to claim the instant attention of the most cursory or youthful surgeon, the degree of the pain and other symptoms depending on the extent, duration, and violence of the disease. There is always more or less fever, increasing towards evening to severity, preceded by rigor or sense of cold, and followed by a hot skin, and a sharp pain, especially in the hepatic region, on attempting to make a full inspiration, or on lying on the left side. There is often a catching hacking cough, with a tensive apprehensive uneasiness of the right hypochondrium. Sometimes there is pain about the right clavicle and shoulder, and generally an increase of pain on pressing the hepatic region with the expanded hand: these feelings are multiplied when the inflammation is centred in the covering of the upper convex surface of the right lobe of the liver. The symptoms may then extend into the chest; respiration is shallow, short, and is carried on chiefly by the intercostal muscles; while pain and suppressed cough increase along with the fever. It is important here to remark that while even a moderate degree of inflammation of the peritoneum will cause the distresses here described, the most intense and destructive inflammation within may proceed quickly to abscess without any great comparative suffering.

When inflammation is chiefly seated in the covering of the right lobe, or posterior-inferior region, the local symptoms take corresponding directions, the general disturbance remaining much as above described, with the additional distress in the latter instance of disorder of the renal function, as well as of that of the bladder. Naturally, the train of symptoms will vary as the concave surface of the liver is involved: here the pain will be less acute, and is referred to the epigastric region

through to the back; and there will be hiccup, nausea, and vomiting of vitiated bile, with anxiety and urgent distress; the functions of the ducts, duodenum, pylorus, and stomach being much disturbed, with tumidness of these regions; all the secretions are vitiated, and the tongue is very foul.

We come now to the consideration of a more obscure morbid process, but one of vastly greater urgency and danger—namely, the inflammation of the parenchyma of the liver. The deep-seated congestive and suppurative inflammation of the liver, as I have termed that of Bengal, would seem occasionally to be a disease of acute congestion, venous and biliary, more than of pure inflammation; and this morbid association, together with its seat in the parenchyma, will account for its latency and insidiousness in so many instances, and for its enormous dangers. Dr. Copland says truly that inflammation does not here arise or reach its acme in a few hours, but congestion may; and Dr. Morehead suggests that actual inflammation of the liver is confined to the capillaries of the hepatic artery, and generally to a small portion of them; while congestion, he conceives, is a turgescence of the portal capillaries, and the cause of the augmented size of the liver.

In my work on the Influence of Tropical Climates on European Constitutions this form of disease is stated to be, in Bengal, by much the most frequent, while its dangers are greater than those of all other forms of hepatic inflammation put together. It is, indeed, one of the most dangerous of diseases, because of its insidiousness, and of the absence of urgent symptoms: the progress which leads to destruction is here silent and rapid.

Whether occurring in the older resident or in the newcomer, it arises more generally in the cold season, and is caused immediately by exposure to alternations of heat and cold; such as the chilling thorough-draughts on issuing from a heated ball-room, for instance, or in going into the damp cold of the early morning for purposes of sport. The disease is sometimes preceded by a perceptible falling-off in the general health, with a peculiar impairment in the action of the liver and kidneys, and with functional disorder of all the other abdominal viscera, as indicated by loss of bulk, dry cough, irregular and embarrassed breathing, loss of appetite, and the complexion assuming gradually a muddy sallow hue. But it more generally comes on in the midst of apparent health, the patient being seldom seen until inflammation has commenced, or proceeded for hours or even days. He will then generally complain of abdominal uneasiness, but more particularly of the epigastric region and that of the liver, with some degree of fever, preceded by slight rigor or aguishness; but all these may be so slight as too often to attract but little of the patient's attention. Perhaps, after more or less loss of time, he consults his physician on account of slight diarrhoea, supposed to result from errors in diet. Medicine affords relief, and the patient may proceed in his ordinary occupations for days, or, where the action is less acute, for weeks together, though under great depression of the mental and corporeal energies; till at length his altered appearance, night fever and restlessness, hacking cough, permanently dry skin, invincible rough furred tongue, and morbid taste—all expressive of suppressed and depraved secretions,—attract some more serious notice on his own part or that of his family. The real nature of the case, with its accumulated dangers, may still remain a secret to both patient and physician; and it may not be till actual tumour of the liver of unknown duration, and a marked succession of rigors or profuse clammy sweats, announce in unmistakable terms the formation of abscess, that either party becomes awake to the imminence of the danger; and then it is too late.

I should say, then, that a rigor, or diarrhoea, followed by feverishness, the peculiar harsh state of the skin, with a muddy or (more rarely) a jaundiced complexion, the tongue having the roughness of a coarse file and an adherent coat, together with the local uneasiness already described, cough, scanty surcharged urine, often of a deep saffron colour,* ought immediately to warn the physician of the suppurative inflammation which leads rapidly to abscess. Nor should exploration of the abdomen be less carefully made, even where the case is of far less urgency than that here detailed. Nothing, indeed, should satisfy the medical attendant as to the condition of the patient short of the most painfully assiduous examinations, often repeated; for he has here to deal with a disease deadly in its nature and rapid in its progress, when insufficiently treated, beyond most others—a disease, when once allowed to run to its suppurative stage, more surely fatal than any known in the East.

* I have often observed, both in the inflammatory and in the suppurative stage, the brilliant pink of the urine mentioned by Dr. Golding Bird as indicating an excess of purpurine.

Treatment.—The treatment of acute hepatitis must always and everywhere in hot climates prove a subject of deep and anxious care to the army surgeon. Seeing that the disease in its worst form, as it commonly occurs in Bengal, proceeds to suppuration, in how many days or hours we know not, its treatment to be effective, and saving of life and future health, must be prompt and energetic to a degree proportionate to the urgency and imminence of the danger. No time can be lost with impunity; for, in truth, "time is life" here, however gained. The rule of Trousseau, in respect to the use of opium, must be our guide in the use of our means of cure: if the disease be reckoned as twenty, the remedies should be as twenty-one. Frerichs, on the other hand, learned and useful as his authority may be on other grounds, cannot here serve us in determining either the nature or the treatment of acute hepatitis as it appears under tropical influences. We cannot, in fact, afford to omit, or even to abate, any of the means which have the sanction of Indian experiences.

General bloodletting must be carried to the extent of relieving pain when such is present, or the dull tensive weight and uneasiness in the right side complained of in other cases; and the operation should give freedom of full respiration, with relaxation of the surface of the body. After some hours, should these indications of relief not prove lasting, and should the original symptoms recur, then, in a constitution otherwise sound, another free abstraction of blood must be made, followed by leeches to the side, or to the arms, or to both, repeating these local abstractions until all the serious symptoms shall have vanished. Those who, like the writer, may have seen within a week a high public functionary, the head of a great mercantile firm, and the head of a young family, all three carried off by a disease insufficiently treated, and who had been in good health previously, will best judge of the requirements of such cases. And referring here to the observations of Dr. Morehead on the treatment of hepatitis in Bengal by Mr. Twining, I may mention that I had ample opportunities, over years, personally to know that, both in the General Hospital of Calcutta and in his private practice, Mr. Twining's cases of hepatitis, where they came early under notice, rarely terminated in suppuration. I take leave here to mention, on the other hand, that bloodletting by leeches alone was not successful in treating this disease in Bengal during my service there. Very many cases so treated came under my review, both in hospital and private practice, in which suppuration resulted, or else years of suffering from chronic enlargement, induration, or cirrhosis, followed by dropsy.

A consideration of this the most acute form of hepatitis must precede, if it do not render unnecessary, that of other and less dangerous varieties of the same disease: first, because of its greater and more immediate dangers to life; and, secondly, from its greater tendency, when imperfectly treated, to become the parent of future chronic sufferings and dangers. What we are in the habit of calling the sequelæ to acute diseases are by no means their necessary consequences, being in truth, and too often, the evidences of feebleness or of neglect in dealing with the original cause. I see numerous examples of hepatic and other visceral diseases following, now as of old, upon the severer forms of remittent and intermittent fevers, when they have been treated exclusively by quinine. The surgeon, in treating the worst form of hepatitis, in common with the worst forms of fever and dysentery, must be tried by the rigorous law of the result: the logic of the event is irresistible, whether we regard the death which follows upon the acute, or that which follows upon the chronic instance, recollecting always that in the former case disease will not wait for a discussion upon a passing fashion in medicine, or for the verification of a theory approved for the time. We cannot here wait to ascertain whether bloodletting acts by affording direct or indirect relief; whether it operates mechanically on hydraulic or dynamic principles. Neither can the operation be deferred for discussions on the tendencies of the hour to disregard altogether the authority of those who have gone before us, and to treat acute diseases with unimportant remedies—tendencies which require firmness, founded on knowledge and a just experience, to resist. Neither, again, can the learning of Frerichs, the knowledge derived from books and from European experiences, even when supported by German industry and minuteness, be here received as authority; something more to the purpose, and far more immediately useful, being imperatively required.

We come next to consider mercury as a cholagogue, emulgent, and alterative. In a disease which we have seen to be of such pressing and immediate dangers, we have to determine whether it is just or safe to abandon such a means upon bare conjecture, or upon the real or supposed explanations of ex-

periments made on the lower animals. On my own observation and experience, I would administer calomel, purgatives, sudorifics, and diuretics, after the system has been prepared by bloodletting for their proper actions; all with the view to their general influences, as well as with the view to their power to derive from the organ endangered, and from not feeling justified in withholding any known means to that essential end. Until experiments shall have yielded more definite and determinate results, such is the advice which I would take leave to submit to the consideration of the young medical officer. The actual fate of certain exclusive doctrines and practices within the memory of most of us, and the impending fate of some others, ought to warn us against accepting any proposition, in a case such as the one before us, unless it be of proved advantage, on evidence beyond question. Those who can look behind them, and a little way before them, will be at no loss to balance the comparative values of the past theory and the passing theory. In our profession, as in others, there are subjects which rise and fall—that occasionally come to the front, and then fall away to the rear; and it will continue thus with us until our modes of investigation become more precise.

I believe calomel to be a cholagogue, experiments on the lower animals notwithstanding; and I concur with Dr. Watson in regarding its exclusion from the treatment of acute hepatitis, in Bengal for instance, as unsafe and unwarranted. This great physician, speaking of those who object to the use of mercury in the early stage of hepatitis, "as being stimulating to the liver," says: "I suspect that this is a piece of theory; but at all events, after the first violence of the inflammation that remedy is not to be omitted." On this principle, which I believe to be strictly true, the most eminent men of my time in Bengal acted, and by none of them was mercury, in this or in any other disease, carried beyond its very mildest influences; and when the general habit was reduced, or anæmic, mercury was used but once or twice in aid of a purgative. Robert Jackson, who seldom used calomel in treating the diseases of the West Indies, declares, nevertheless, that where the biliary function is morbidly affected there is no other remedy to be compared to it. The relief obtained in certain forms of jaundice from one dose of calomel, after all other remedies had failed, is familiar to everyone; and who has not witnessed the astonishing results, in torpor and passive congestions of the liver, from a spontaneous biliary diarrhoea?

The violence of acute disease having been subdued by appropriate treatment, we have still to watch the patient, and to meet the lesser demands of nature to the end of assuring the true convalescence which alone leads to the restoration of health. The course to be pursued, for a longer or shorter time, according to the exigencies of each individual case, must yet be cooling, alterative, depurant, and derivative, all measured by the nature and amount of remaining disorder; the diet being throughout of the sparing character, while the milder means here indicated must be persevered in so long as any febrile movement or other constitutional disturbance exists in the system, the patient being shielded from cold and currents of wind, and confined to bed. We should, in fact, abate in our care only as natural secretion and a natural state of the functions of the abdominal viscera are found to return.

When vascular turgescence or a state of passive congestion remains, after the subsidence of all the more acute sequelæ to inflammation, the persevering use of the nitro-muriatic acid, externally and internally exhibited, will, according to my observation, go farther and better towards restoring the healthy condition of the liver than any other means; and the effect may be aided, when necessary, by blisters, or by the ointment of tartarized antimony. For restoring the functions of the liver, and for promoting healthy secretion generally, after the turmoil of such an invasion as acute hepatitis, I repeat that I know nothing, whether used in India or at home, so conducive to natural convalescence and cure as the combined acids, employed in the joint manner stated. Mercury is then but seldom required, and its use during the few days of acute morbid action usually brings us to the end of its proper term of employment. Externally I have used acids for many years, both in Bengal and at home, in the form of bath, general and local, and as a swathe placed round the abdomen worn day and night; while, internally, they have been given with fluid taraxacum, chiretta, or simaruba infusion. When eliminants and emulgents are needed in the stage of recovery, the podophyllum combined with henbane, extract of Indian hemp, and ipecacuanha, will prove very effective, used as an occasional means; while the diet must still be carefully regulated, making free only with green vegetables and fruits—otherwise absorption of

interstitial deposits will not take place. In this cautious manner only can we secure the patient, whether in hospital or in private practice, against chronic sufferings, functional or organic.

Having submitted the results of my observation and experience during many years, in hospital and private practice in Bengal, as to what I regard as the essential requisites of treatment in this (after epidemic cholera, the most acute and, under neglect,) the most fatal of tropical diseases, I take leave to mention that some at least of the extrinsic sources whence dangers may be apprehended are in our own power to avoid. The rash, uninformed, and inexperienced surgeon may overdo the treatment, or temporarily injure the health while he has saved the life of the patient. Anæmic debility may be the result of over-treatment; but if young—and all are young in India, comparatively—he will soon be restored to health. The timid surgeon, on the other hand, even when he appears to have knowledge, will be found insufficient at all points, will do everything by halves, or upon exclusive views, and the result will be altogether in accord with both doctrine and practice; he will leave his patient to die speedily of hepatic abscess, or he will consign him to a miserable, lingering death in the hospital or in the transport ship.

I have seen that medical experiences acquired in whole or in chief part in the treatment of Asiatics have been here of no avail, and proved, indeed, a disqualification rather, when brought to bear on the white races. Medical officers thus unhappily placed have, like the Bourbons, been unable alike to forget what was useless or to acquire a knowledge of what was true and useful. Such men, brought in middle life into the wards of a European hospital, have generally been found to act to the detriment of the public service, and to the discredit of science, however worthy in other fields of action. They were always timid; the violence of tropical diseases in robust Europeans frightened them, and they took refuge in exclusive doctrines and practices—a natural resting-place for the weak, the indolent, and the inexperienced. I am here speaking of certain individuals only whom I have known in the course of service, and whom I saw misplaced. As to the medical corps of India generally, it will compare well with the best in the world; it is second to none.

There is not here, any more than in the treatment of tropical fever or dysentery, any just room for the exclusionist. Hepatitis cannot be cured by brandy, quinine, or water, any more than tropical fever or dysentery by one or two drugs. All these diseases require for their just management a well-measured union of all the known means, and not the exclusive use of any one of them.

Upper Brook-street, Grosvenor-square, July, 1864.

ON THE USE OF TEA AS A REMEDY IN COMA.

By JAMES A. SEWELL, M.D., L.R.C.S.E.,

SENIOR PHYSICIAN TO THE HÔTEL DIEU HOSPITAL, AND PROFESSOR OF THE PRACTICE OF PHYSIC AT LAVAL UNIVERSITY, QUEBEC.

MRS. A. B—, aged thirty, has been subject for some years to what she calls “spasms of the heart,” for which she some short time ago visited Europe and was treated at different times by Drs. Simpson of Edinburgh, Stokes of Dublin, Trouseau of Paris, and other eminent men in London, Vienna, and Glasgow, but without any effect. Latterly she had been using Battley’s sedative solution with more benefit, but as she had no attack for some months she had discontinued the use of this remedy for about three months. A short time since she was threatened with one of her usual paroxysms, and, dreading it very much, she had recourse at once to Battley’s sedative solution in two-drachm doses; these doses she continued at intervals till she had taken two ounces and a half in about eight hours. Shortly after the last dose she was seized with a slight convulsion, and almost immediately became comatose. I saw her at two o’clock A.M., two hours after the convulsion, and found her in a state of profound coma: pupils contracted; respirations two in the minute, and performed with a great effort; pulse very rapid, small, and extremely irregular; face deathly pale, ghastly, cold, and covered with a clammy sweat; extremities also cold. It was evident that she was under the

narcotic influence of the enormous dose of opium which she had swallowed and that death was imminent. As three hours had elapsed since she had taken the last dose, I conceived it useless to use the stomach-pump; moreover, in the then state of her respiration, I believe the use of that instrument would have been at the risk of her life. As she could not swallow, an emetic was equally out of the question. I therefore applied extensive sinapisms to the legs and chest, used the cold douche, and applied ice to the head. Having by this time been joined by my friend, Dr. Jackson, I suggested the propriety (while waiting for a galvanic battery) of administering an injection of a pint of the strongest possible infusion of green tea per anum, which was done at a quarter past three A.M. In half an hour there was a visible improvement in the breathing, which was now six in the minute, accompanied by a slight return of colour to the face, and a corresponding improvement in the temperature of the cheeks. The coma continued much the same, but, encouraged by the improvement in the other symptoms, the injection of tea, to which some brandy was added, was repeated at four o’clock. During the next hour we had the satisfaction of observing a gradual return of the respiration to its normal condition, with an improved state of the pupils, and a corresponding change in the general temperature of the body. She continued to progress favourably, and between five and six o’clock (or about two hours and a half after the first injection), though she could see nothing, she recognised those about her by their voices, and soon after we were enabled to pronounce her out of danger.

This case I consider of great interest taken in connexion with the use of “green tea” as an expergeficient or nervous stimulant. The improvement in the general symptoms followed so rapidly upon the treatment, notwithstanding the enormous narcotic dose taken, that I think I am justified in attributing this lady’s recovery to the adoption of the tea. I am aware that neither this remedy nor its application is new, as I believe a case very similar to the above was published in THE LANCET some two years since, which was successfully treated with “theine;” but while every practitioner has not the active principle by him, the tea itself is accessible to all. I may state that this is the fourth time I have used green tea in cases of coma, and with the best results. My first case occurred about six years ago.

An infant, aged eighteen months, had been forced by its drunken father to swallow three parts of a wineglassful of the vilest whisky usually sold in the low taverns which infest this city. She shortly afterwards became comatose, in which state I found her in an hour and a half after taking the poison. Her face was pinched and drawn; her extremities very cold; her pupils dilated, and death apparently at hand. With very great difficulty I succeeded in getting into the stomach one teaspoonful of a strong infusion of tea. This I ordered to be repeated every twenty minutes. On my return I was informed by the mother that after the sixth dose the child had perfectly recovered, and was, as she expressed herself, “as brisk as a bee.” My second case was a peculiar and instructive one, as it shows what a powerful agent the remedy under consideration really is.

Mr. S—, aged forty, was suddenly seized with violent convulsions which left him profoundly comatose. In my absence he was seen by one of my medical friends, who considered him dying. On my return home, some three hours afterwards, I visited my patient, and finding him still perfectly insensible, notwithstanding the adoption of the ordinary remedies, I ordered a strong infusion of the tea to be prepared, and directed that he should get one tablespoonful every twenty minutes till my return. This was effected with the greatest difficulty. I saw him again in two hours, when he had taken six doses, and I found him sufficiently recovered to be able to recognise me on my entrance. Finding him so far improved, and not yet fully acquainted with the power of the remedy, I committed a great mistake by making a rule of three case of the matter, reasoning, that if six tablespoonfuls had done so much in two hours, what would twelve do in four! I therefore ordered the above-mentioned dose to be continued as before. I returned in about one hour and a half, after my patient had taken four additional doses. On entering the room I found my man (who a few hours before had been pronounced to be dying from coma) a raving maniac. He had destroyed all the delf in the chamber, maltreated the nurse, and struck his wife, of whom he was very fond, and whom hitherto he had always treated kindly. These symptoms of nervous excitement, brought on by an overdose of the expergeficient, soon passed off, and next day he was himself again.

My third case was that of a young lady, aged twenty-six.