Clinical Lecture

ON

ADDISON'S DISEASE.

BY

EDWARD HEADLAM GREENHOW, M.D.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; CONSULTING
PHYSICIAN TO THE WESTERN GENERAL DISPENSARY;
ASSISTANT PHYSICIAN TO THE MIDDLESEX
HOSPITAL; ETC.

PART II.

As the case upon which I have dwelt in the former part of this lecture is still under observation, and I can therefore only speak of it as Addison's disease on the assumption (of the truth of which, however, I entertain no doubt) that the diagnosis is correct, I must now, in order to place the subject fully before you, give you the details of Dr. Thompson's fatal case, which he has kindly placed at my disposal, and of which Dr. Cayley has made a thorough *post mortem* examination.

M. D., aged 55, labourer, was admitted into Hertford Ward, under Dr. Thompson's care, on the 6th of last month. He had been strong and hearty until about three months before his admission. His illness began without any definite symptoms beyond gradual loss of strength, to such an extent that he could scarcely stand, and was compelled to give up work, and about Christmas to leave off going out, even for a short walk in front of his house. Besides the great debility, he by this time suffered also from breathlessness on exertion, nausea, frequent vomiting, and pain at the epigastrium.

On admission, his complexion was dark, but less so than that of the patient whose case I have already described. His body generally had only a faint brownish tinge; but the penis and scrotum were of a very dark blackish-brown hue, as were likewise the cicatrices of some burns received in early life upon the left arm and upon the inner aspect of the right elbow. I should mention, however, that the discoloration was limited to the less deeply injured parts, and that, in the midst of the dark patch on the inside of the right elbow, was a small, well defined, glistening, perfectly white cicatrix, about the size of a pea, where the burn had destroyed the deeper layers of the skin. On the back, also, were several cicatrices, some of which were discolored, while the deeper ones remained of normal hue. The cicatrices of buboes in each groin were stained of a deep brown colour. On the upper surface of the tongue, near its edge on both sides, were several brownish-purple stains, with well defined margins, perfectly smooth, and neither elevated above the surrounding parts nor differing from them in hardness. The lips and buccal mucous membrane also presented distinct brown stains.

As regards constitutional symptoms, the pulse was almost steadily 60, very feeble and compressible, and, for the first week, the heart-sounds were free from roughness. The respiration was feeble; and slight rhonchus and sibilus, with a few moist sounds, were heard on both sides of the chest. The percussion-resonance was slightly deficient in the upper part of the chest, particularly below the right clavicle; but

there was nothing to indicate active disease in the lungs.

Whilst in the hospital, the patient suffered much from retching and sickness; and complained of pain in the loins and epigastrium, frequently accompanied by tenderness on pressure over the latter region. He had frequent cramps in the muscles of the abdomen and legs, especially when he retched; and found it easier to lie with the knees drawn up, the cramps becoming worse when his legs were stretched out. A few days after his admission, the matter vomited became of a greenish colour and had a bitter taste. On February 14th, for the first time, a faint systolic murmur was heard at the apex of the heart, and the pulse fell to 52, and became extraordinarily weak; but a day or two afterwards rose again to 60. On the 19th, he was so weak that he fell when he attempted to get out of bed; and on that day the matter vomited consisted of mucus streaked with blood. He now slept badly; and by the 22nd had entirely lost his appetite. The retching continued; and there was a distinct cadaverous odour about his person. On being raised up in bed for examination of the chest, he became very faint and sick. On this day, fine crepitation was found below the left clavicle, and rhonchus and sibilus were heard all over the posterior part of the thorax. There was also marked dulness over the upper part of the chest posteriorly. He had raised a few thick dark green sputa, several of them tinged with blood; and he complained of sharp pain in the region of the diaphragm near the margin of the right ribs when he breathed hard. From this time he gradually sank, and expired on the 2nd instant; death being preceded by great restlessness, retention of urine, wandering of mind, and groaning as if from pain.

At the *post mortem* examination, the lungs were found firmly attached to the ribs by fibrous adhesions. Deposits of yellow cheesy matter were found in the apices of both lungs; and these deposits were surrounded by dark consolidated tissue intersected by fibrous bands. The lungs were everywhere else perfectly crepitant. There was recent pericarditis; and the right cavities of the heart were filled with firm masses of yellow semi-transparent fibrine adherent to the muscoli pectinati and chordæ tendinæ, and passing into the pulmonary artery as far as the second division. A similar but smaller coagulum was found also in the left ventricle, passing for a short distance into the aorta. The great omentum was firmly adherent to the diaphragm and the gall-bladder to the small intestine. The under surface of the diaphragm, the surface of the mesentery, and of the peritoneum in front of the spine, were studded with patches of grey tubercular granules surrounded by deposits of black pigment. Peyer's glands were normal; the kidneys were slightly granular.

Both suprarenal capsules were enlarged and nodulated, the right being much the larger. The fibrous envelopes were much thickened; and that of the right capsule firmly adherent to the diaphragm. On section, no traces of cortex or medulla were discoverable; but the whole of both organs had been converted into material which to the naked eye had precisely the appearance of tubercle.

Under the microscope, a section of one of the discolored patches from the tongue shewed deposits of brown pigment arranged in irregular masses in the papillæ; the superficial layers of epithelium covering them being quite free from discoloration. I may here observe that the deposit of pigment in the skin giving rise to the discoloration of Addison's disease is situated, as a rule, entirely in the rete mucosum, the epidermis and the true skin remaining generally unchanged.

You will have observed that this case presents the same general features as the former one; namely, gradually progressive asthenia and gastric irritability, attended by discoloration of the skin and of the mucous membrane of the mouth. In both cases, also, old tubercular deposits in a quiescent state were found in the lungs. This is quite in accordance with general experience; for tubercle in the lungs or other organs has been found associated with Addison's disease in a majority of all the genuine cases published. To the black discoloration round the patches of tubercle on the peritoneum in the last case, I attach no importance beyond that of their affording proof of the very chronic character of the tubercle in these situations; for the same appearances have often been observed in chronic tubercular affections of the peritoneum, in cases in which the suprarenal capsules have been found quite healthy. Indeed, several foreign writers are of opinion that the discoloration found in Addison's disease is due, not to the peculiar morbid change in the capsules, but to the general tubercular disease which is frequently associated with it. It is quite true that, in very chronic phthisis, there is occasionally a dusky hue of skin; and I have lately pointed out to many of you two such cases under my care; but this discoloration in phthisis is comparatively rare, and, when it does exist, is wanting in all the characteristic features of the discoloration peculiar to Addison's disease. Moreover, it is just those cases of Addison's disease which are complicated with advanced phthisis in which the discoloration of skin is most frequently absent; whereas, if the theory to which I have referred were correct, those are precisely the cases in which we ought to find it the most invariable and most strongly marked. The adhesion of the right capsule to the diaphragm and the thickening of the connective tissue round both capsules in Dr. Thompson's case afford conclusive evidence of there having been inflammation in those parts, although the *post mortem* examination has revealed no obvious cause for it, such as the caries of the spine, which I feel assured will be found in the case of C. S., the patient now in Founder Ward. Doubtless, some of the symptoms presented by Dr. Thompson's patient were due to the other diseases under which he was also labouring; but this in no way invalidates the correctness of the diagnosis as regards Addison's disease, which was made on the day of the patient's admission, and was proved to be correct a month afterwards by *post mortem* examination. A few days before death an unpleasant cadaverous odour was observed about this patient's person. This peculiar symptom has been noticed before in Addison's disease, both by myself and by other observers. In my experience, it is a sign of the approach of death, which has invariably taken place in the course of a few days after its appearance.

The discoloration is quite characteristic in both the cases I have related; though it is most intense in Dr. Stewart's case, which you can still see for yourselves. Sometimes, however, the discoloration of skin is faint, and insufficient to suggest the nature of the disease from which the patient is suffering. It has happened to me on two occasions to be led to diagnose Addison's disease by the constitutional symptoms alone, aided by the circumstance that there was no other discernible disease to account for them; and I have then had to look closely for the

slight discoloration of skin in order to confirm my diagnosis. This occurred, in fact, with regard to the case which I mentioned, at the beginning of this lecture, as having been recently in the hospital under my own care; and, as it seems to show the at least temporary efficacy of treatment in this disease, I shall devote a few minutes to giving you some particulars of it.

J. D., aged 43, park-keeper, became an out-patient under my care on the 17th of last November. He had had ague some years before coming under observation; but had been otherwise healthy until about five months since. He had suffered much during that period from pain in the loins, especially on the right side, and from pain and tightness in the epigastrium, for the relief of which he had applied a small blister to the part three months before his admission. He had also suffered from vertigo, and latterly from nausea, retching, and vomiting.

On admission, he had a languid, exhausted aspect; his pulse was extremely feeble; he was short of breath, and manifestly very ill; but there was no emaciation, nor any obvious evidence of local or constitutional disease. He had a troublesome catarrhal cough, but without any physical signs of pulmonary disease; his tongue was clean; bowels confined; and urine normal.

From the absence of any other cause for his peculiar symptoms, I was at once led to suspect the existence of Addison's disease, and to seek for discoloration of skin in corroboration of my suspicion. I then observed that the face and back of the neck were slightly dusky, as were also the hands and arms as high as the elbows. The part on the epigastrium where the blister had been applied three months before was deeply discolored; and on the left clavicle there was a yellow-brown stain, about an inch in length, evidently corresponding to the cicatrix of some slight wound. These last features of the discoloration decided me in the opinion that the case was one of Addison's disease. With these exceptions, however, the skin was still fair, and free from pigmentary deposits. The buccal mucous membrane presented several brown stains in places which had apparently been irritated by the teeth; but the margins of the lips were unaffected.

J. D. continued an out-patient until December 29th, when he was admitted into Hertford Ward. His cough had abated, and he had lost the sickness for some time; but on the 20th of December he had been attacked with severe pain in the epigastrium, together with loss of appetite, nausea, and breathlessness. These all continued at the time of his admission. His hands were cold; his pulse thready and compressible; respiration hurried; and he had a constant inclination to yawn and stretch. His face, hands, and nipples were manifestly darker; and several dark specks, of the size of freckles, had appeared since he was first examined, but all on the previously discolored parts of the skin. While in the hospital, he had slight cough, raising a thick, dark, scanty mucus. His pulse remained feeble; and he still had pain in the left hypochondrium, but was better in both respects while in the recumbent posture. He left rather suddenly in consequence of the shock occasioned by the deaths of the patients in beds on either side of him on two successive days; but he has continued under treatment up to the present time. He is now decidedly stronger, and has been able to resume his occupation; but he still presents, though in a mitigated degree, the same constitutional symptoms and the discoloration of skin is

becoming gradually more general and its characteristic features more strongly marked.

These circumstances leave no doubt whatever on my mind as to the existence of Addison's disease of the suprarenal capsules; and, although the patient may, with great care and suitable treatment, be propped up for an indefinite time, he must always be considered as in imminent danger of a breaking down under any powerful depressing influence. Even an unusually severe day's work, or a slight attack of diarrhoea, might suffice to upset the balance and lead to a speedily fatal issue of the case. Nevertheless, he has unquestionably benefited much from the means used; for when he came into the hospital he was becoming so rapidly worse, that it seemed probable he would die in a few days; and he not only improved much before he went out, but continued to do so afterwards at home, and has not yet relapsed.

The other case which I mentioned as having been in the hospital under Dr. Thompson's care, and which has remained under my observation ever since, has followed so very similar a course, that I shall read you a brief history of it, before proceeding to point out the mode of management which I have hitherto found most successful in delaying the progress of the malady.

E. B., aged 26, needlewoman, was admitted into Northumberland Ward in March 1865. Dr. Thompson asked me to examine her on the day of admission. Ten years before, she had hurt her hip, and had been cupped; but she had been in generally good health, and had worked hard until November 1864. She then began to fall asleep over her work, to have frequent attacks of vomiting, and to suffer from gastralgia, and from breathlessness and palpitation on exertion. About Christmas, her friends noticed that her complexion was becoming darker. On admission, her pulse was exceedingly small; and she complained much of lassitude and of vertigo when she moved about, or even raised herself suddenly in bed. She had no appetite, but constant thirst and craving for cold water. Her respiration was quick and shallow, with a tendency to yawning. There was slight dulness on percussion immediately below the right clavicle, and considerable tenderness on pressure in the right hypochondrium. Her face was generally dusky, with ill-defined patches of a darker brown on the forehead and cheeks; the conjunctivæ, as usual in this disease, remaining white. The chest was dusky; the nipples and areola intensely brown; and the mamme atrophied—a circumstance I have observed in other females suffering from this disease. The cicatrices of the cupping-marks on the hip, and of a burn on the right elbow, were stained brown; and there was a dark line nearly round the abdomen, corresponding to the line of pressure of a string belonging to her dress. Here you will recognise the same train of symptoms and the same characteristic features of discoloration of skin which I have described in the other cases. This patient improved very much in the hospital, and left it, at the end of some weeks, for the Convalescent Institution at Walton-on-Thames. On her return home, she discontinued the treatment, and resumed her work, but fell off again in a month or two; and, on being sent to in haste, I found her one night lying exhausted, cold, almost pulseless, sighing and yawning, retching at every movement, and complaining of intense pain in the hypochondrium. In fact, she seemed almost dying; and I brought her at once to the hospital, where, however, she again rallied, and was again

discharged at the end of a few weeks, in a greatly improved condition. Soon after leaving the hospital, she married, and continued tolerably well for some months, but is now once more under my care as an out-patient, suffering, though in a less intense degree, from her former symptoms; and the discoloration of her skin has certainly become deeper during the interval. Her hair, originally of a dark brown colour, has also gradually changed to black, and has become very coarse.

It seems to be unquestionable, from the history especially of this last case, that Addison's disease, although incapable of cure, is yet in some degree amenable to treatment in respect of delaying its progress, unless the illness have already arrived at its later stages. Owing, no doubt, greatly to our still imperfect knowledge of the nature and causes of the disease, the means of treatment at our disposal are as yet unfortunately scanty. The remarkable asthenia, however, by which the disease is characterised, the constant tendency of the patients to succumb under any powerful depressing influence, and the strong evidence as to the disease being frequently a result of surrounding irritation, are facts which clearly indicate the necessity for tonic treatment and nutritive diet, the avoidance of all causes of depression, and the great value of rest and of such therapeutic agents as may relieve the vomiting and other exhausting symptoms and tend to invigorate the general health. Prolonged rest in bed, and subsequent avoidance of fatigue, or indeed of much bodily exertion or mental strain of any kind, have formed essential parts of the management in all the cases which have improved for a time under my observation. The use of drastic purgatives should also be scrupulously avoided in these cases. Constipation is more common than otherwise in Addison's disease; but, unless it be very extreme, I think it better to abstain from interference than to risk the dangerous depression which often follows the administration of aperient medicines. Many of you will recollect the case of E. W., a young girl who died under my care in Murray Ward of Addison's disease somewhat more than a year ago, and whose fatal seizure appeared to have been brought on by the effects of a dose of calomel and jalap given her by her mother.

As regards diet, the only plan is to give nourishing food of whatever kind the patient's stomach can best bear, and this will probably vary more or less in every case; substituting milk, eggs, jellies, oysters, and the like, for the stronger diet of meat or soups, when the stomach cannot tolerate these latter.

For the relief of the nausea and vomiting, ice, soda-water and brandy, chloroform or creasote, bismuth and effervescing medicines, with citrate of iron, have each in turn proved useful in my hands; and, again, each at times has failed to effect any good purpose. After the sickness has abated, decided benefit sometimes attends the administration of chalybeates and cod-liver oil or glycerine. In the last two cases I have related to you, cod-liver oil disagreed with the patients; but glycerine, in doses of two drachms, combined with fifteen or twenty minims each of spirit of chloroform and of the tincture of sesquichloride of iron of the *London Pharmacopæia*, has been of great service. I speak positively on this point, because in each case the patients on several occasions have discontinued the medicine as

soon as they felt better for it, have then fallen off, and, on applying to me and resuming its use, have in a week or ten days begun to improve again without any other simultaneous change in their treatment or circumstances.

Little as this is, it is yet all that I can tell you from my own practical experience on the subject of treatment; and I shall now only detain you for one concluding remark. You may be surprised that I have chosen to base my lecture on four cases of Addison's disease, of which only one has passed the crucial test of a *post mortem* examination; but I have done so purposely, because I have little doubt that in one at least of the other three cases we shall soon have the opportunity of verifying the diagnosis and of thereby proving the reality of the relation between the symptoms I have described and Addison's disease of the suprarenal capsules—a relation of which I am myself as firmly convinced as I am of the relation between the physical signs of a cavity in the lungs or of incompetency of the mitral valve and the diseases which they respectively indicate.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

KENSINGTON DISPENSARY.

CASE OF ERYTHEMA NODOSUM.

By J. H. BARTLETT, Esq.

THE chief interest in the following case is in the exceptional position in which the eruption made its appearance.

Richard H., aged 13, was admitted as a home-patient at the Kensington Dispensary on June 13th, 1866. He had measles, and scarlet fever with dropsy, when three years old; and had an attack of erythema nodosum in June 1865.

The patient was taken ill on June 9th. He was very feverish; and on the 10th several red blotches were seen on both shins, which became swollen and painful to the touch. This eruption also made its appearance on both thighs, especially about the hips; and over each tuber ischii was a large, red, painful swelling, very hard to the touch.

June 17th. The eruption appeared on the left arm, on the ulnar aspect. One or two blotches appeared on the right elbow, and one on the tip of the left ear.

June 18th. The patient was thin and pale. On the legs, hips, and buttocks, were seen the remains of the eruption, which was now of a greenish yellow colour; they were desquamating in minute scales, and still felt somewhat hard. On the left arm, over the ulna, were seen three or four swellings of a purplish red colour, hard to the touch, and very tender. There was a large swelling on the outer side of the elbow, extending about an inch and a half up the arm. There were three blotches on the right elbow, but not so well marked as on the left. On the tip of the left ear there was a swelling exactly similar to those already described. There was no pain in the joints, nor profuse sweating. The heart-sounds were normal; no friction was heard. The patient took bicarbonate of potash and liquor cinchone (Bartley's).

June 20th. With the exception of slight remains

of eruption, and feeling weak, the patient was now convalescent. He was ordered to take cod-liver oil.

REMARKS. Dr. Tilbury Fox, in his work on *Diseases of the Skin*, says that the eruption of erythema nodosum is situated on the anterior aspect of the leg, rarely on the arm or above the knee. Mr. Erasmus Wilson mentions the leg and arm only. But in this case it not only appeared on the legs and arms, but also on the buttocks and on the tip of the left ear.

Erythema nodosum has a very close connexion with rheumatism; but there seems to have been but little in this case; for, with the exception of one sister having suffered from rheumatic fever, there was no history of that disease in the patient's family.

Original Communications.

ON THE VALUE OF TONICS IN SOME LOCAL LESIONS.

By JAMES R. GREENWAY, L.R.C.P.Ed., Sandy, Bedfordshire.

THE practice of stimulation, so common in the present day in innumerable varieties of disease, has not appeared to me entitled to all the merits which its votaries claim for it, nor, in many cases, to favour so fair a restoration to health as we are entitled to expect from the employment of rational means. I have full faith in the value of stimulants in disease, and have met with very few cases which I believed general depletion could benefit; still I am fully convinced that stimulation may be, and have seen instances in which it has been, as injurious in one way as it is possible for depletion to be in another. There are local lesions which speedily improve upon good diet and a liberal allowance of malt liquors or stronger stimulants; but the many others which require something more in their treatment for it to yield successful results, must prevent every thinking mind from believing or trusting in the virtues of stimulants to the extent which some would desire, in all cases manifesting depressed power.

There is a class of diseases, in which debility with some local lesion is a prominent symptom, which I have frequently found not to improve upon stimulants and liberal diet till tonics were given, and these in a form calculated to improve the blood-condition, and thereby the general nutrition of the body, and the local nutrition of the part affected. In the cases referred to, in addition to depressed power, we have to deal with vitiated plasma in the circulating fluid. This may not be always evident to the surgeon at first; still, I think, if the fact be borne in mind, there are few such cases which can escape due consideration. The history of preexisting debility or disease, past excesses, residence in unfavourable climates, poisoned wounds, the aspect of the patient, etc., will generally indicate blood-tonics to be required, however valuable stimulants in such cases may be.

Quinine is beneficial where nervous prostration exists, and other bitters where the digestive powers are impaired; but in cases in which the digestive functions are fair, and yet the local lesion tardily repaired, or manifesting a sloughing or ulcerative character, the tincture of the sesquichloride of iron would seem to beneficially influence the local disease and general health. If there be nausea, or gastric uneasiness, chloric ether is an useful and agreeable addition. The local application of a lotion contain-