

diabetes.³ 5. That the glossy skin of Sir James Paget, which has been shown to depend on injury or disease of the peripheral nerves, is sometimes seen in diabetes, and that there can be no doubt that this condition is of a somewhat similar pathological character to perforating ulcer. These considerations seem to show that it is possible—nay, more, even probable—that diabetes may sometimes play an active part in the causation of perforating ulcer.

Lastly, with regard to the operative treatment of this affection. It appears to me that the case which I have just related strongly supports Messrs. Savory and Butlin's opinion that the extreme measure (i.e., amputation of a portion or of the whole of the foot) is at best but a doubtful one; for it is evident from the diseased condition of the posterior and anterior tibial nerves that such a procedure would have led to no permanently good result in this case. If, however, amputation is decided upon, I believe it would be advisable not to adhere to hard-and-fast rules with regard to the site of the operation as laid down by various surgeons,⁴ but rather to amputate through perfectly healthy tissues—namely, tissues external to or beyond the zone of anæsthesia so commonly present in perforating ulcer of the foot.

Nottingham.

A NOTE ON THE TREATMENT OF PURULENT OPHTHALMIA.

By CHARLES HIGGENS, F.R.C.S.E.

SEVERE purulent ophthalmia is perhaps the most rapidly destructive disease to which the eye is subject; consequently its treatment has received a large amount of attention. It has always appeared to me that the disease could be rapidly cured if the discharge could be got rid of, or its character altered; it always seemed that it was the discharge which kept the disease going. Constantly washing away the discharge with some astringent and antiseptic lotion gave fairly good results; but the treatment was troublesome, and unless one saw to it oneself was rarely properly carried out. Some years ago Mr. Bader first suggested that persalts of mercury killed or destroyed the pus secreted by a mucous surface; he used to employ an ointment of red oxide of mercury, atropine, and vaseline applied to the conjunctiva, and with good results. The one objection to this treatment was the severe pain it caused, which seemed to me to quite counterbalance any advantage it might have over the washing away treatment. Since cocaine has been introduced, application can be made to the eye of substances which before its introduction caused so much pain that few patients could be found who would continue to use them. I have now treated some ten or twelve cases of severe purulent ophthalmia—some of distinctly gonorrhœal origin—by the following method, and the case reported from notes by my dresser (Mr. Andrews) is a fair specimen. 1. Wash away all discharge, and thoroughly cleanse the eyes with a 5 per cent. solution of boracic acid. 2. Apply thoroughly to the whole conjunctival surface, and fill the conjunctival sac with, an ointment composed of yellow oxide of mercury (16 gr.), boracic acid (20 gr.), hydrochlorate of cocaine (from 5 gr. to 10 gr.), and vaseline (1 oz.); and in some cases I also add 2 gr. of sulphate of atropine. The ointment may be applied with a camel-hair brush, a quill, a syringe with a good wide canal, or in any way that seems most suitable, so long as care is taken that no part of the conjunctival surface escapes it. 3. Cover the eyes with lint plentifully smeared with the ointment, and bandage them. Some pain is caused by the first application, which can be prevented by using a 2 per cent. solution of cocaine before making it; after the first application the effect of the cocaine in the ointment keeps the eye numb from one application to the next, unless the applications are made at very long intervals. The eyes should be examined in about two hours. If there is any discharge the whole process must be repeated; if there is none, the bandage may be reapplied and left for another two hours. As a rule, the ointment requires to be applied every four

hours for the first two days, less frequently afterwards; but the discharge must never be allowed to collect.

Harry W.—, aged eighteen, was admitted into the hospital on March 22nd, 1887. His history was that seven days before, March 15th, the left eye suddenly began to itch, and in the course of two days the eyelids became swollen, and discharge commenced. Four days later the right eye became similarly affected; the discharge from both was very free. On admission pus was flowing freely from both eyes, there was much swelling of the eyelids, and intense congestion and swelling of the conjunctiva. There was some difficulty in examining the corneæ; but the left was found to be perforated, and there was an ulcer on the right. The eyes were thoroughly cleansed, and the ointment, the prescription for which is given above, was applied (the application to be repeated every four hours), and the eyes were bandaged; quinine was ordered internally and the patient put to bed. The discharge was much diminished after the first application of the ointment. On March 27th, five days after commencing the treatment, there was very great improvement; the swelling of the eyelids had greatly subsided, the conjunctiva had flattened down and was much less congested, and the discharge, which had become less and less, had almost ceased. On April 1st there had been no discharge from the right eye, and very little from the left. The bandage was removed from the right eye. On April 9th, all swelling and discharge had entirely gone. There was slight corneal opacity below the pupil of the right eye. In the left eye there was an opaque flattened cicatrix—to which the iris was adherent—occupying the centre of the cornea; the eye had good perception of light.

Remarks.—The result of treatment in this case was most marked, the only cause for regret is that the patient did not apply sooner; had he done so, in all probability the damage to the left eye would have been prevented. He was not suffering from gonorrhœa, but the case looked like one of gonorrhœal infection.

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ON A CASE OF SUNSTROKE.

By A. CHEVALLIER PRESTON, M.R.C.S.

JOHN V.—aged fifteen years, was brought to my house on Jan. 7th, 1887, by his mother. He had been cutting grass with a horse reaper, sitting on the machine driving, for the past two days, with no head shade but a cap, in the burning sun. He was gradually seized with pain in the chest and back, accompanied by convulsive movements of the arms and legs and contortions of the face. Has had no previous illness.

On examining him, I found him intelligent and able to tell me what I wanted to know, but his speech was muffled. His face was congested, and there was general redness of the skin of the whole body, with beads of perspiration on the forehead. His arms and legs were in a constant state of rhythmical convulsions. He could not protrude his tongue when asked to do so. Asked for drink. Pupils equal and slightly dilated. No unconsciousness. Pulse 100; temperature in axilla 99.4°; bowels constipated; passed urine freely. Unable to walk without assistance. Thinking the above symptoms were owing to the exposure to the sun in the intensely hot weather then prevalent, I ordered him to be kept in a darkened room, his head to be shaved, and an ice-bag applied to the head and back of neck, with a diet of milk and slops. I also prescribed a mixture containing ten grains of bromide of potassium and five grains of hydrate of chloral, to be taken every three hours, with five grains of calomel at bedtime.

Jan. 8th.—11 A.M.: On visiting him I found him still convulsed, with slight intermissions. No sleep had been obtained. The bowels had not acted. Unable to open jaw. No pain, but feels ill. Pulse 120, hard. Temperature in axilla 101°. Taking nourishment. Ordered ice-bag to be continued to the head, milk and ice by the mouth, and gave five grains of calomel again in powder; injected five grains of quinine hypodermically; the bromide and chloral to be continued.

9th.—3 P.M.: Has had half an hour's sleep, and says he is in no pain. Has taken two pints of iced milk in the twenty-four hours. Had a loose motion last evening, and passed abundance of high-coloured urine. Pulse 110, still hard;

³ Laffon (Bordeaux). THE LANCET (Annotation), Sept. 13th, 1886.

⁴ Bryant's Surgery, 4th edition. Erichsen's Surgery, published 1884. Jacobson in Heath's Dictionary of Surgery.

temperature 100°; respiration 26, shallow. When asked to protrude his tongue, he did so, but it got fixed between the teeth, which were gradually closing upon it involuntarily, and I had difficulty in getting it back, as he bit it severely, causing it to bleed much. No power over jaws, but can move his tongue and swallow fluids with difficulty. No paralysis of sphincters or of general muscular system, but it seems to be confined to the head and face. Spasms tetanic. As he had had no sleep, I gave one-third of a grain of morphia hypodermically. To continue medicine.

10th.—11 A.M.: Slept two hours yesterday after morphia. Bowels not open. Pulse 104°; temperature 100°; respiration 26, shallow. Conjunctivæ much injected; pupils normal. Fluids return through the nose when drinking. Quite sensible. Can open the jaws a little. Marked opisthotonos and strong convulsions of whole body every few minutes. Ordered chicken jelly to be added to his diet, and increased the dose of chloral to ten minims and gave it less frequently—every four hours.—8 P.M.: Slept at intervals through the day; drowsy. Taking food well. Paroxysms not so frequent, but quite as severe. Pulse increasing in rapidity, 142; respiration 30; temperature 101.1°. Micturates freely. Skin dry. Breathing quick, but free from crepitations or rhonchus. Can open his teeth to the extent of one inch. Quite conscious; says he is in no pain.

11th.—11 A.M.: Has passed a quieter night, but restless since daylight. No opisthotonos during my visit, but persistent trismus. Bowels not open. Pulse 120; temperature 101°; respiration 30. Taking nourishment through a tube. Complained of great pain over cervical vertebræ.—8 P.M.: Has slept at intervals during the day. No twitching during sleep. Taking food fairly well. Skin hot, congested, and dry. Pulse 132; respiration 30. Abdominal diaphragm and intercostals not working in rhythm. Bowels slightly moved. Says he feels better. A severe attack of opisthotonos occurred during my visit, otherwise the paroxysms have been less frequent, though three occurred to-day. Can open the jaws decidedly better, but cannot protrude the tongue. Cannot move his legs, but there is no loss of sensation.

12th.—11 A.M.: Has passed a restless night owing to thirst and the extreme heat of the weather. Fits less strong. Takes nourishment well through tube. Temperature 100.1°; pulse 110°; respiration 25. In no pain to-day. Can put out his tongue better, and can open the jaws wider. Tongue clean. No opisthotonos. Gave a soap enema, which brought away a normal motion.—8 P.M.: Has been restless through the very hot day (100° in shade), but slept an hour in the afternoon. Convulsions much quieter. No opisthotonos. Can open the jaw and protrude the tongue much better. Pulse 108; temperature 100.1°; respiration very jerky and irregular, 26. Asleep when I left. To continue the chloral and bromide every four hours; ordered the yolks of two eggs to be given in milk, and plenty of chicken jelly through the night.

13th.—Noon: Has had a better night and taken all the nourishment ordered. Slept four hours. Still complains of pain in his neck and back. Is having slight convulsive spasms of the whole body every few minutes, but is quite conscious during them. Pulse 110; temperature 101°; respiration 38.—9 P.M.: Very restless during the heavy thunder-storm which occurred this afternoon, and was with great difficulty kept in bed. Convulsions have now returned stronger than ever. Respiration 30 ("Cheyne-Stokes"); pulse 132; temperature 101.2°. Gave four minims of ergotine hypodermically, and added ten minims of the liquid extract of ergot and the chloral mixture every four hours.

14th.—Noon: Slept one hour and a half during the night, and took a fair quantity of milk and broth. Convulsions less severe, but more frequent. Temperature 103°; pulse 160; respiration "Cheyne-Stokes" in character. Mucous râles all over chest. No loss of consciousness, but evidently sinking. Ordered one drachm of rum in milk every two hours.—6 P.M.: Has been gradually getting weaker, but no loss of consciousness. Pulse increasing in rapidity, almost immeasurable. Says he is in no pain. Convulsive twitches all over the body incessantly. Jaw relaxing. Died, quite conscious to the last, at 10 P.M. No necropsy would be permitted.

Remarks.—I much regret that I could not obtain permission for a post-mortem examination. This case appeared to me to be primarily one of spinal meningitis following prolonged exposure to the sun, the lesion being situated in the upper part of the cervical portion of the spinal membranes. There was probably a secondary affection of the cord itself, profoundly involving the motor nuclei, and

later on the medullary portion, exciting them to the state of irritability manifested during the progress of the case. The vagus remained unaffected so far as its cardiac fibres were concerned, I think, as evidenced by the little disturbance of the heart's action; but there was, I consider, an involvement of the respiratory centre accounting for the want of coördination of the intercostal muscles with the diaphragm. The persistence of the intellectual faculties and the absence of pain, during the greater part of the disease, points to the non-tendency I have observed in similar cases to the upward spread of the lesion, to the brain itself, as one would expect. The body temperature did not attain the height of many recorded cases of less severity, and the non-loss of control over the sphincters, is, I think, an unusual feature in so serious a lesion.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A SIMPLE METHOD OF PROCURING DEGLUTITION WHERE SUCH IS IMPEDED BY REASON OF EXTENSIVE ULCERATION OF THE EPIGLOTTIS.

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ONE of the most distressing symptoms accompanying laryngeal phthisis with ulceration of the epiglottis is the difficulty patients experience in swallowing. Especially is this the case in advanced conditions where the epiglottis is more or less completely destroyed. In such circumstances the swallowing of even a teaspoonful of water, or liquid of any kind, is all but impossible, from the violent cough that is excited in consequence of the passage of some of the fluid into the larynx and trachea. Such patients are generally tormented with a thirst which they cannot satisfy, and the painful efforts they make to get down a few drops of liquid, and the terrible spasms of coughing and pain thereby produced, are truly pitiable to observe. One of my patients in the last stage of laryngeal phthisis, and in whom the epiglottis had more than half disappeared from ulceration, lately taught me a "wrinkle" which others may find of service. He informed me that he had discovered a method of drinking even large quantities of fluid with ease, and (in as nearly as possible his own words) said, "I thought of how we used to drink when we were boys, out of a running brook, by lying down upon the bank and putting our mouths to the water, and I resolved to try the plan. I sent for a piece of indiarubber tubing, and found that by adopting the same position I could drink off the whole of a tumblerful of water with ease and comfort." I asked him to give me a demonstration of the feat, and lying stomach downwards upon the couch in my consulting-room, with the head and arms hanging free over the end, and with the feet higher than the rest of the body, he took a large tumblerful of water in both hands, and placing the open end of a piece of indiarubber tubing (about six inches in length and with a vulcanite mouthpiece) in the fluid, and the mouthpiece between the lips, drained off the contents without stopping, and with the greatest ease and comfort. Not the slightest pain or cough accompanied the act, showing that none of the fluid entered the larynx. The feat was the more remarkable to me, who had often seen him making great efforts to swallow fluids, but unsuccessfully, in the sitting position. In the ordinary position a teaspoonful of fluid was as much as he could manage to get down, and this was accomplished only at the cost of much pain and terrible paroxysms of coughing. The plan is simple enough, and is one which will procure relief for other patients afflicted with the same terrible laryngeal conditions; as I have never seen it applied before, I venture to mention it to those who have to treat similar conditions, and I am sure they will find it an excellent method of alleviating one of the most distressing sufferings of patients of this class.

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