

a second attack during which their re-opening and tapping might have allowed once more a temporary recovery.

Somewhat similar cases, though mentioned by Macewen, Hewitt, and others, being comparatively rare, the total duration of the respiratory failure being exactly one and a quarter hours, I may be pardoned the above details; and this case is, I think, unique in that recovery, temporary at least, took place without the actual evacuation of the abscess. To what extent this happy result may be ascribed to the battery it is difficult to say, but it cannot be wholly dissociated from it, and faradism certainly now holds, in my estimation, a higher place as a remedial agent in anæsthetic difficulties than it had previously done as a result of my reading on the subject.

Glasgow.

NOTE UPON THE USE OF PILOCARPINE IN THE TREATMENT OF PNEUMONIA.

BY E. CURTIN, M.D.R.U.I.

THE pharmacological action of pilocarpine is well known and its striking action as a diaphoretic has led to its use in many conditions where morbid fluid accumulations have to be removed from the system. It does not appear, however, that its therapeutic value has been tested in pneumonia save by few observers. Thus recently¹ Pelzl records his experiences in an Austrian military hospital where he gave 0·0125 gramme (equal to one-fifth of a grain in solution) of pilocarpine hydrochloride by the mouth with good results. In the same article several theories are given of the action of pilocarpine in cases of pneumonia. In the South African war during 1901-02 I made use of the drug in several cases under my care. The notes of some of these cases are given below. The administration was by means of hypodermic injections of one-tenth of a grain of pilocarpine nitrate in solution of tabloids of that strength. I might draw attention to the fact that the disease in coloured races (I speak especially of Kaffirs in these notes) exhibits some differences from that seen in Europeans—e.g., British troops serving in South Africa. In the latter there is more of the toxæmic character than in the former. The high mortality—no less than from 50 to 60 per cent.—in cases of pneumonia occurring in the coloured races of South Africa has been frequently remarked upon.

CASE 1.—A half-caste scout was admitted to hospital complaining of "stick in the side." The whole of his right lung was dull to percussion and his general symptoms pointed to a severe attack of pneumonia. Repeated cold baths failed to affect his temperature which registered 105·4 F. He passed a restless and delirious night and on the following morning, his temperature having risen to 106°, I gave a hypodermic injection of one-tenth of a grain of pilocarpine. Considerable sweating followed and although there was no immediate reduction in the temperature his general distress was much relieved. During the afternoon of that day and in the ensuing night he expectorated a large quantity of fluid bloody mucus and when I saw him on the morning of the third day of his illness his temperature was normal and his lung had almost completely cleared. Two days subsequently he left the hospital tent at his own request.

CASES 2 and 3.—Soon after this I had occasion to visit Upington where Dr. Phillips showed me two cases of pneumonia in half-castes. In the first case both lungs were affected and the air passages seemed choked with bronchial secretions which the patient had neither energy nor strength to expel by coughing. He appeared in such an agony of distress that Dr. Phillips and myself regarded his case as quite hopeless. The attack in the case of the other patient was one of average severity. Both cases were in the same ward and under similar conditions and were injected with one-tenth of a grain of pilocarpine. Their recoveries were rapid and satisfactory.

A transfer to No. 3 Stationary Hospital, De Aar, from Kenhardt, where there was a native ward equipped with competent attendants, afforded me an opportunity of further testing the value of the drug in pneumonia with the

result of a decrease in the mortality in native cases of at least 50 per cent.

In the few cases in which I had an opportunity of applying this treatment to Europeans the results were not so satisfactory as in natives. This I attribute, as already stated, to the toxæmic symptoms which were such a marked feature in soldiers affected with pneumonia during active service in South Africa.

CASE 4.—A private, aged 41 years, with the usual soldier's history, was admitted to hospital suffering from pneumonia of the left lower lobe. The temperature on the morning of admission was 104° F., the pulse was 125, thready and compressible, and the respirations were 50, shallow, very painful, and accompanied by working of the nostrils. His appearance was one of great distress. On the second day after his admission his evening temperature was 103°, but his general symptoms continuing severe I gave one-tenth of a grain of pilocarpine hypodermically with the result of almost immediate arrest of pleuritic pain and relief of general distress. During the ensuing night he expectorated freely. The following morning his temperature had fallen to 100° and redux crepitations had replaced the tubular breathing of the previous day. From the fifth to the ninth day his temperature remained below 100° F. and in every respect he was making satisfactory progress. He then had a rigor which was followed by pneumonia of the right lower lobe. He was again injected with pilocarpine and after a prolonged convalescence returned to duty. The usual stimulating treatment was also employed.

CASE 5.—This patient was a private who was admitted in the evening. There was a patch of dulness of about the size of the palm of the hand over the lower anterior border of the right lung. The morning after admission his temperature registered 103·4° F. and in the evening slightly above 104°. His general symptoms were not severe and he was comparatively free from pain. At 2 P.M. on the second day after admission to hospital I injected one-tenth of a grain of pilocarpine which produced moderate perspiration but otherwise had no immediate marked effect. In the evening his temperature went up 1° to 104°. On the following morning it had fallen to normal, where it remained. He returned to duty on the fourteenth day after his admission and would have been fit sooner but for his indiscretion in having attended a concert.

CASE 6.—The patient, a private, was admitted suffering from pneumonia of the left base. On the following day acute delirium set in with symptoms of profound toxæmia. An injection of one-tenth of a grain temporarily relieved his breathing. On the evening of the third day his temperature, which from the first had been under 102° F., rose to 105°. The injection was repeated, with the result of a reduction to 103° but without relief to other symptoms, especially delirium which continued active until his death at midnight. Saline injections and oxygen were also used. Notable features in this case were little cough, scanty expectoration, comparatively low temperature until a few hours before death, and delirium.

CASE 7.—The patient, a private, was admitted complaining of cough and pain in his chest. His temperature was 102·4° F., the respirations were 30, and the pulse was 120. The lower lobe of the left lung was dull to percussion and the breathing was tubular. The right lower lobe was also dull. There was a short sharp cough, with scanty blood-stained expectoration. On the following day dulness on the left side extended to within three inches of the apex. The respirations and pulse were very frequent and the heart sounds were feeble. From this time cough and expectoration ceased and active delirium set in. On the third day after admission subcrepitant râles replaced the tubular breathing of the previous evening. Dyspnoea and cyanosis being marked one-tenth of a grain of pilocarpine was given with the view of liquefying and causing absorption of inflammatory products. On the following morning both lungs had cleared remarkably. Profound toxæmic symptoms, however, continued and he died at 3.30 P.M. from cardiac failure. Toxæmic features were prominent throughout the whole case and it resembled the pneumonia seen in alcoholics, as after the first 48 hours there was scarcely any cough or expectoration, the fever was never very high, and there was active delirium. In addition to general stimulating treatment two pints of warm saline solution were injected into the cellular tissue of the axilla. No history of alcoholism could be obtained. A feature in this case also was the limited pyrexia.

The last two cases are instructive in showing that the

¹ THE LANCET, March 21st, 1903, p. 823.

prognosis in pneumonia does not depend so much on the extent of lung affected as on the amount of toxic symptoms present and the absence of a healthy reaction in the individual attacked. A low range of temperature is not necessarily a favourable sign, especially if accompanied by delirium, scanty expectoration, little cough, and a dry brown tongue.

From my limited experience of the action of pilocarpine I believe that it will occupy a leading place in the treatment of pneumonia. It relieves pleuritic pain and breathing within a few hours of its administration and also seems to hasten resolution, probably by exciting glandular secretion. Its administration is in the majority of cases followed by a rise of temperature of from half a degree to one and a half degrees. One-tenth of a grain hypodermically does not cause profuse perspiration but rarely fails to reduce the temperature within an hour or two. It also cleans the tongue and stimulates the flow of saliva. I have not noticed its repeated administration attended by any undesirable or unpleasant results. One precaution is necessary—namely, to keep the patient warm and especially the feet. I regret that owing to the loss of some notes and temperature charts I have to generalise instead of giving full statistics and details of the cases, but I trust that from the above rough notes—jotted down while on active service in South Africa—I have succeeded in drawing attention to a drug which will frequently prove of practical value in cases of pneumonia.

Bournemouth.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

METHYLENE BLUE IN THE TREATMENT OF MALIGNANT MALARIAL FEVER.

BY J. M. ATKINSON, M.B. LOND., M.R.C.S. ENG.,
D.P.H. CANTAB.,

PRINCIPAL CIVIL MEDICAL OFFICER, HONG KONG.

As is well known, quinine has practically no effect on the crescent bodies met with in malignant malarial fever. It is these bodies which, when ingested into the stomach of the mosquito, undergo those changes which terminate in the formation of the germinal rods or sporozoites. These are carried in the body fluid of the mosquito to its salivary glands and are the actual source of infection in man. Hence the importance of finding some drug that will destroy them. I have recently been trying the effect of the internal administration of methylene blue on a Chinese boy, aged 15 years, who was admitted into the Government Civil Hospital on Jan. 24th, 1903, suffering from malignant malarial fever. On examining his blood numbers of crescents were found and as quinine administered for a week had no effect in diminishing these, on Feb. 9th two grains of methylene blue were given thrice daily in the form of a pill. On the 16th, after careful examination, no crescents were to be found in his blood. As the patient was now suffering from gastric disturbance, nausea, vomiting, &c., which I thought might be due to the drug, it was discontinued. The blood was again examined on the 17th and 20th and was found to be free from crescents.

The above is only one case, I admit, but knowing the importance of reporting the effects of any drug which will kill these crescents I send this note.

Hong Kong.

A CASE OF RUPTURED OVARIAN CYST.

BY ALFRED CLARK, F.R.C.S. EDIN.

ON March 14th, 1903, I was called to see a married woman, aged 25 years, who had been suffering from severe abdominal pain and metrorrhagia at about fortnightly intervals for three or four months. She had one child three and a half years old and had never been pregnant since. I found her in bed, blanched, restless, with sighing respiration, a feeble pulse of 130 per minute, and a temperature of

102° F. Her abdomen was slightly distended, acutely tender, and rather dull on percussion. The left iliac region was a little more full than the right and was more resistant on palpation. With a hypodermic injection of one-fiftieth of a grain of strychnia her pulse improved somewhat and I had her removed at once to a private hospital where at 10 P.M. Dr. T. G. S. Hodson administered chloroform and I opened the abdomen with an incision four and a half inches in length, the patient being in the Trendelenburg position. There was a large quantity of blood clot in the abdominal cavity. After removing this I found an ovarian cyst on the left side about as large as an ostrich's egg with a straight rent in its anterior aspect about three inches in length. Venous oozing was still going on from the edges of the rent. The cyst wall was thick and very adherent to the bladder and small intestines. A piece of cyst wall was so intimately adherent to the latter that I had to leave it lest I should tear the bowel. Then I removed the left ovary and examined the right. This had a thin-walled serous cyst as large as an orange, so I removed this also. The operation lasted about 45 minutes as the adhesions made it tedious and the patient was removed to bed in a bad condition and with a very feeble and fluttering pulse, but she rallied after a hypodermic injection of one-fiftieth of a grain of strychnia. She had rather troublesome vomiting of bright-green material for a couple of days and on the second and third days passed some blood-stained mucus from the bowels. Otherwise she made an uninterrupted recovery. I removed the sutures on the fourteenth day and she was discharged a few days later. A fortnight later she called at my house and said she felt better than she had done for a year or more.

Bitterne, Hants.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

SOUTH WIMBLEDON AND MERTON COTTAGE HOSPITAL.

A CASE OF CÆSAREAN SECTION FOR CONTRACTED PELVIS;
RECOVERY OF THE MOTHER AND CHILD.

(Under the care of Dr. MARTIN RANDALL and
Dr. A. H. GERRARD.)

IN this case, which was one of full-term pregnancy, the patient was a primipara, aged 21 years. The pains commenced slightly on August 24th, 1902. On the 26th the patient was seen by Dr. A. H. Gerrard when he found the waters broken and the head presenting above the brim. He came to the conclusion that the pelvis was greatly contracted and he asked Dr. M. Randall to see the case with him. The patient was a small woman but not obviously malformed. Her general condition was good. The pains were regular and strong, the membranes were ruptured, and the os was of about the size of a five-shilling piece. The head could be felt freely moveable higher up. The sacral promontory was very large and projecting, the diagonal conjugate being under three inches. The estimate on measuring was two and seven-eighths inches; this would indicate a true conjugate of not much over two and a half inches. As the head appeared on abdominal palpation to be of normal size, the alternative of craniotomy or Cæsarean section was put to the patient and her friends and the latter was chosen. The patient was removed to the hospital. Dr. D. Findlay administered ether and Dr. Gerrard and Dr. T. Brice Poole assisted at the operation. A hypodermic injection of one-twenty-fifth of a grain of strychnine was given and the vagina was washed out with a 1 in 1000 solution of biniodide of mercury.

After opening the abdomen a piece of stout elastic tubing was passed behind the uterus to the cervix. This was rendered very easy by a thick copper wire passed along the bore of the tubing; the wire was removed as soon as the