Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON THE ACTION OF RADIUM AS AN ANALGESIC AND NERVE TONIC.¹

By Dr. A. DARIER.

(Translated for THE LANCET.)

ON Oct. 6th, 1903, I described a case of cancer of the face which had been rendered painless by means of radium, an observation which has since been confirmed by other authorities. I have also noted the rapid and penetrating analgesic action of radium in certain cases of cyclitis and iridocyclitis and I have been able to reproduce these phenomena in other conditions with the same success for the last four months. It therefore appears certain that radium preparations of low intensity applied to a painful part are often capable of rapidly removing the pain.

The action of radium on the psycho-motor centres is still more remarkable. In two cases of convulsive neurosis in which the attacks occurred every day in one patient and three or four times a week in the other radium applications to the temples for two or three days were followed by cessation of the attacks. In a case of neurasthenic pseudo-ataxia radium brought about complete recovery in three days (probably by suggestion). In a case of acute facial paralysis of quite recent origin radium effected a cure in the course of the following day. Without attempting to explain these remarkable and novel effects, the observed instances of which are as yet but few, I think it right to make them known so that other observers may be induced to study this interesting question.

The activity of the radium preparations which I employed was tested in the laboratory of M. Curie and was found to vary from 10 to 7000 in terms of the accepted scale ("uranies"). For low activities I allowed the tubes containing the radium to act from two to four days and even for as long as 15 days, the pain sometimes reappearing shortly after the applications were stopped. With preparations having intensities from 1000 to 7000 the application was continued for two or three hours a day. In the above-mentioned case of facial paralysis I used high intensities of this degree. Preparations having a low intensity are moderate in price and recent experiments permit me to hope that similar therapeutic results may be obtained even with substances merely rendered radio-active by induction. If that proves to be so the cost of the treatment could be brought within the means of all patients.

Paris.

A CASE OF TRAUMATIC TETANUS TREATED WITH ANTITETANIC SERUM.

By H. HOWARD MURPHY, M.D. CANTAB.

THE patient was a boy, 12 years of age, and usually healthy and strong. While at play on July 18th, 1903, he slipped off a plank and struck his left leg, causing a wound over the tubercle of the tibia; a triangular flap of skin with the apex downwards and the sides each about two inches long was torn upwards and bled freely. He was attended by a medical man who put in two sutures and applied an antiseptic dressing. The upper part of the wound healed but at the apex a little skin died. On July 27th the boy did not feel very well, his symptoms being malaise and headache. On the 28th he complained of stiffness of the jaws and neck and the masseters were noticed to be rather hard. Tetanus had therefore set in after less than ten days' incubation. On the 31st he was admitted to St. John's Hospital, Twickenham, with decided tetanus. The masseters were stiff, the mouth could not be opened beyond a quarter of an inch, there was slight risus sardonicus, and the muscles of the neck and back were somewhat stiff. The boy walked rather slowly and stiffly,

his tongue was clean, and his bowels had been fairly opened. He was given a dose of calomel and a mixture containing bromide and chloral. A telegram was also sent to Messrs. Allen and Hanburys for a supply of antitetanic serum. The wound on the leg was healed, all but a very small spot healthily granulating. On August 1st there was more stiffness of the muscles, the limbs were somewhat affected, and the spasms of opisthotonos occasionally occurred. He was given a hypodermic dose of ten cubic centimetres of antitetanic serum in the right flank. The bowels were well opened by the calomel and the boy took liquid nourishment well. Towards the evening the spasms and pain were worse, so the mixture was given every two hours. His temperature was now 99° F. and his pulse-rate was 100. On the 2nd it was noted that he had had a bad night, screaming frequently, with painful spasms and opisthotonos. A second injection of ten cubic centimetres of antitetanic serum was given and the medicine was continued every two hours. The temperature was 100° and the pulse-rate was 116. On the 3rd there were much less pain and spasm and the boy had short periods of sleep. The mixture was pushed till drowsiness was produced. A third injection of antitetanic serum was given. The temperature now went up to 102° and the pulse-rate to 120. On the 4th the boy was obviously better; he slept more, had less pain and spasm, could move his arms and legs a little, and could open his mouth slightly. His temperature was 100° and his pulse-rate was 105. He continued to improve slowly and steadily. The temperature and pulse fell to normal on the 6th and the movements of the muscles gradually improved. On the 9th he was given a dose of liquorice powder; this caused him griping pains and a return of spasm and stiffness for a few hours in the face, neck, and limbs. After this he slowly and steadily improved but had still some little stiffness and soreness of the limbs. After three weeks he was allowed to get up but could not walk because of stiffness and weakness of the legs and ankles, so he hobbled about with sticks. After another week he was discharged well.

In THE LANCET of Oct. 17th, 1903, a case was reported which seems to have been even more acute. My patient was no doubt much benefited by the antitetanic serum and even if the recovery is not to be ascribed entirely to it the result is an encouragement to use the serum in every case.

Twickenham.

RENAL HÆMATURIA PRODUCED BY TEREBENE.

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THE attack now to be described was not the first of the kind which the patient had experienced, for at Wei-Hai-Wei in July, 1902, he suffered to a slight extent from the same symptoms after taking three minims of "terebene" out of the same bottle. He did not pay much attention to the matter and the effects passed away in a few days.

The history of the present attack was as follows. The patient, aged 34 years, got wet through at Shanghai on the night of April 27th, 1903. On the evening of the 28th he felt ill, took five minims of "terebene" on a piece of sugar at 8.30 P.M., and slept well. On the morning of the 30th he passed the usual amount of urine and towards the evening he noticed his urine turning red. Since the 30th the urine was red and it was worst on May 3rd. He came to see me on the morning of the 4th. His temperature was then 99.8° F. and his pulse-rate was 94. He complained of pain in the small of the back and the neck of the bladder, with frequent micturition. The urine after standing for five minutes was of a fairly bright colour throughout. The deposit at the bottom of the glass consisted of numerous tiny bright-red blood clots. It contained albumin and under the microscope numerous blood corpuscles were seen.

After standing for six hours the urine showed three layers in a glass six inches high. The lowest layer, one inch deep, consisted of a thick pinkish-white deposit containing numerous blood cells; the middle layer, four inches deep, consisted of a turbidity of a pinkish-white colour, also containing numerous blood cells; the top layer, one inch thick, was of clear red-stained fluid, with very few blood cells. On the 5th his temperature was normal and he passed

¹ Read at the meeting of the French Academy of Medicine on Feb. 16th, 1904.