CASES COMPLICATED WITH MENTAL DISORDER TREATED BY THYROID EXTRACT.

By RICHARD R. LEEPER, L.R.C.P.I., F.R.C.S.I.,
Medical Superintendent of St. Patrick's Hospital, Dublin.

THE first case in which I used thyroid extract was one of myxoedema complicated by mental symptoms.

T. R. P., aged 24, was admitted on February 24th, 1888, in a maniacal condition. She had been very troublesome at home, and latterly had developed symptoms of myxoedema. She had after some time passed into a condition of apathetic delusional insanity, with occasional outbursts of excitement, in which she was noisy and obscene in her language. Her features were expressionless, her speech thick, and her movements slow and deliberate. No thyroid gland could be felt in her neck. Her catamenia were irregular, and she was obstinately constipated. The temperature and pulse were subnormal. Thyroid treatment had been tried, but had been abandoned as of no use. On March 22nd, 1899, I ordered her to bed and again commenced thyroid treatment. In this case I used the liquor thyroidei of the B.P., as recommended by Dr. Murray, and gradually increased the dose to m₁₅ per day. There was an interval of nearly two months between the commencement of the treatment and the period of reaction. From this period she gradually gained ground. The tachycardia was at no time great, and the treatment had but to be once suspended owing to an attack of syncope. Her bowels resumed their action, the catamenia became regular, and the mental symptoms entirely disappeared, the patient becoming bright, cheerful, and ladylike. As no thyroid gland could be felt in the neck I ordered her to continue the treatment at home. When last heard of she was doing well, and taking 5 grs. of the extract daily with small doses of iron.

J. B., aged 23, was admitted to the hospital I then had charge of on July 22nd, 1897. The family history was very bad; the father had been a drunkard, and subject to attacks of mania, the mother had also been intemperate. The patient's mental condition was one of acute mania, being boisterous, violent, and hilarious. She had been eccentric in her conduct for about three days, the attack coming on suddenly. Her eyeballs were exceedingly prominent; the carotids and indeed the entire front of the neck was visibly pulsating. The thyroid gland was considerably enlarged, and a loud *bruit* could be heard all over it. The pulse was too rapid to count accurately, and the excitement being continuous I feared she would die from exhaustion. She was with difficulty kept in bed. A mixture of bromides, digitalis, and diffusible stimulants was ordered, and she was carefully watched for symptoms of cardiac failure. She remained for seven days in this condition, when the pulse-rate became slower, and she gradually quieted down. All medicinal treatment was now discontinued, and she gradually sank into a semi-stuporose condition; she could be induced to speak with difficulty, and she was apathetic and apparently demented. Her temperature was subnormal. She remained in this condition for over a month, when, as she was becoming dirty in her habits and showing no signs of improvement, I commenced to treat her with thyroid extract. She rapidly responded to the treatment; 5 grs. of the extract had been given for a week daily, when tachycardia commenced to return, and with it came back her intelligence. She steadily improved, and was discharged on November 15th of the same year completely recovered mentally. The period of her illness was a complete blank to her. At the time of her discharge the neck tumour was slightly decreased in size. When last heard of she was still doing well and had no return of her mental symptoms. In this case it would appear that the condition of apparent dementia was directly due to thyroid hunger, and the smallness of the dose of the gland substance which produced the reaction was noteworthy.

C. L., aged 20, was admitted in 1897. Her case was one of delusional stupor, apparently passing into dementia. It rapidly yielded to treatment by thyroid extract and iodide of potassium in 10-gr. doses. She belonged to a neurotic family, and was highly educated and accomplished. Her illness was of six months' duration, and she had been apathetic and semi-stuporose from the first. There was no organic disease. She suffered from delusions of unseen agency, and had hallucinations of sight. From this condition she at one time recovered, but relapsed almost immediately into her former state, and became dirty in her habits, resistive, and dumb. She had to be carried to and from the grounds, and required to be forcibly fed at times. I commenced thyroid feeding on June 4th, 1899, when no thyroid body could be felt in her neck. She had been gaining in weight but the mental condition seemed to steadily grow worse. From the commencement of the treatment the dose of thyroid extract was increased to 20 grs. per day. In August she had reacted well, had become brighter, and had developed a thyroid body, the lobes and isthmus of which could be distinctly felt. The tachycardia, owing to the long period the treatment was persisted in, was considerable. The dose of extract was gradually lessened as the patient got better. She was discharged on September 11th, 1899. Iron and strychnine were ordered in completion of the medicinal treatment of the case. She remembered all the events which occurred during her stuporose state, and told me the reason she would not speak or sit down or walk was to express her disapproval of mesmeric influences exercised upon her and her fellow patients. This influence was shown, she said, by the changing colours—red, yellow, and violet—in which the patients were dressed, and which changed rapidly before her as "the result of witchcraft."

This treatment is, I consider, an imperative one in all cases of insanity showing a steadily downward course in which there is reason to suspect thyroid insufficiency. No drug has hitherto produced in so speedy and safe a manner such remarkable results. Bearing in mind the cumulative property of the substance, its effects must be carefully watched, but the risks should be small if the patient be free from

organic disease at the commencement of the treatment and if it be conducted under careful systematised observation.

The administration of thyroid extract owes its remedial results to its direct stimulation of the cortex and the increased metabolism thereby induced amongst its elements. The rise of temperature is, however, not the most constant symptom of reaction. To the increased pulse-rate and quickened circulation must presumably be attributed most of the good effects of the treatment.

If conditions of mental exaltation and depression are due to alterations in the cerebral circulation, then in thyroid substance we possess a remedy capable of influencing mental symptoms in no small way. Its usefulness in melancholia has been widely proved, and its action in reducing blood pressure must not be lost sight of in this affection. With an increase of our knowledge of the functions and mode of action of the secretions of the ductless glands, will be found a solution to many of the problems of psychiatry.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

POISONING BY SODIUM SALICYLATE.

MR. HILTON HEFFERNAN's instructive and interesting case showing the effect of 130 grains of sodium salicylate taken at one time calls for comment.

This patient voluntarily performed a useful experiment for us, and it has been shown by Mr. Heffernan that the salicylate produced no depression. Somehow it has crept into the textbooks that sodium salicylate is a depressing agent, and each author has handed it on to his successor. Now I hold that the salicylate within reasonable limits is not a cardiac depressant, but on the contrary is often a calnative of the greatest usefulness. Sodium salicylate is one of our most useful remedial agents, and can even be prescribed in such a depressing malady as diphtheria with the utmost safety.

Leeds.

GORDON SHARP, M.D.

POISONING BY OLEUM EUCALYPTI.

AT 4 P.M., a child, aged 3 years, swallowed between two and three teaspoonfuls of oleum eucalypti. Two hours afterwards it was violently sick, and as drowsiness supervened, and it was unable to keep its eyes open, I was sent for shortly after 8 P.M.

I found the child lying upon its mother's knees in a state of stupor and insensibility; the conjunctivæ were almost insensible to touch; both pupils were contracted to pin point and insensible to light; the temperature was subnormal, respirations were quick and shallow but not stertorous, the pulse frequent and weak; the extremities were cold and clammy, cyanosis being well marked.

The child remained in this condition until 4 A.M. next morning, when she rapidly recovered consciousness, and when I called at 11 A.M. she was running about the house.

The symptoms were identical with those of opium poisoning, with one single exception, namely, absence of stertorous breathing.

Ripley, Derby.

FREDERIC C. WOOD, L.S.A.Lond.

FORMALIN IN RODENT ULCER.

ON June 17th, 1899, E. H., aged 76, labourer, had a rodent ulcer the size of a sixpence on the right cheek, for which he refused operation. Acting on suggestions which had lately appeared in the BRITISH MEDICAL JOURNAL, I packed the ulcer with a 20 per cent. solution of formalin in glycerine and water on a pledget of cotton wool, kept in place by strapping over protective, the sound skin having first been guarded by a coating of liquid guttapercha. Two days later the granulations were white and friable, and I picked their tops off with dissecting forceps and repeated the dressing. This process was repeated every other day. On reaching the lowest layer of malignant cells the tissues below bled freely, but at the next dressing these tissues would be found to be protected by a firm scab of blood clot unaffected by the formalin. On