of the muscles), and unilaterial paralysis of the tongue muscles. (The effect is seen in our illustration on page 10).

Mental symptoms, which were not common, were intense restlessness, mania due to irritation of the brain, nocturnal delirium, and confusion.

The myoclonic form of the disease might occur in connection with the spinal cord, as distinct from that in connection with the brain. The symptoms were cramp of the abdominal muscles, also small hæmorrhages might occur, as well as hæmaturia and melæna.

If the chronic type lasted for more than a year there was little hope of complete recovery.

The Parkinsonian type of the disease, which bears a close resemblance to paralysis agitans, takes its name from the observer who first described the latter condition. In this type there was rigidity of the muscles, the head was held stiffly, the face expressionless, the mouth fixed, there was no smile and the movements of the limbs were affected. There might be tremors of the hands, or propulsion, the patient running after his own centre of gravity, violent myoclonus, and occasionally chorea. Salivation was often a distressing symptom, and occasionally there was definite pain caused by the inflammation of the pain fibres in the brain.

Again, there might be peculiar disorders of speech.

Thus, if a patient were asked how he was, he would say "I am quite well, well, well," or he might say "Quite well, quite well, quite well." Sometimes also ex-cessive obesity might complicate the disease.

Although the actual cause of encephalitis lethargica had not been discovered it was known that its virus had an affinity for the grey matter of the brain, i.e., the nerve centres, as apart from the white matter, i.e., the nerve fibres.

Occasionally the disease might be associated with epilepsy, and, as already mentioned, with hemiplegia. Another feature was profound asthenia or muscular weakness.

Certain mental symptoms included deterioration of the

mental faculties, and children especially developed behaviour disorders. Thus, a child formerly well behaved might become mischievous, and make himself a general nuisance. Provision for the care of such children up to the age of 16 was made at the Northern Hospital, under the Metropolitan Asylums Board, but what was lacking for older patients was this control and supervision under which adolescents and adults suffering from encephalitis lethargica could be cared for, and made as happy as was possible, and be quite useful members of society. At present, sooner or later they frequently came within the arm of the law.

## A Reproach to Our Social System.

Dr. Worster-Drought related the circumstances of a case within his own knowledge of a lad who had suffered from encephalitis lethargica, who is at present serving a sentence of twelve months' imprisonment. The law, he said, allowed no distinction unless a delinquent could be certified as irresponsible for his actions, that is, insane, and it was a reproach to our social system that such a distinction could not be made. It would only require a

slight alteration of the laws enacted when the disease encep-

halitis lethargica was unknown. occasional symptoms Other of the disease were narcolepsy (when the patient would fall asleep at any time), emotional disturb-(laughter and weeping), ance hypochondriasis, disorders of memory, peculiar respiratory disorders, attacks of hiccough and a feeling of excessive cold.

## Notes on Lecture III.

Dr. Worster-Drought began his third and last lecture by enumerating other diseases for which encephalitis lethargica might be mistaken.

In the acute phase in children, oute meningitis, tuberculous acute meningitis, polio-encephalitis and acute chorea need to be excluded. In adults the acute phase presented the same difficulties. Other diseases which might be mistaken for encephalitis lethargica were tuberculous meningitis, diabetic coma (often in cases of meningitis there is sugar in the urine), cerebro-spinal fever (now seldom seen) cerebral thrombosis, uræmia, botulism, typhoid (the typhoid state), and tetanus have all been mistaken for encephalitis lethargica.

In the chronic stage first and foremost there was paralysis agitans, due to a lesion in the same part of the brain, general paralysis of the insane—a chronic disease with which sleepiness might be associated --- chorea, cerebrospinal syphilis, cerebral tumours, narcolepsy, Schilder's disease—a rare chronic disease of the brain, and Wilson's disease, in which there was always a family history and involvement of the liver, and other chronic diseases of the nervous system. It was

often difficult to distinguish chronic encephalitis lethargica from dementia præcox.

Treatment consisted (1) in preventing the communication of the disease to others. The case should be isolated, also contacts, as far as possible, and it was advisable for the throats of contacts to be swabbed with I in I,000 permanganate of potash. (2) Nursing. In the acute stage rest in bed was absolutely essential, as in all acute 'illnesses of the nervous system; fresh air and open windows were important, and the patients often did better if they slept in the open air. Food should be light and palatable and must be given

CHRONIC ENCEPHALITIS LETHARGICA OF THE PARKINSONIAN TYPE, Note characteristic attitude of body and arm

with expressionless face.





