

expense of building it might be quite possible to establish moderate sized asylums for the middle or educated classes, not near London alone, but in several of the counties of England. Certainly, if such establishments could be instituted, they would be the means of relieving many persons of refined education, and accustomed to all the decent comforts or even the elegances of life, from a great aggravation of their sufferings, when unhappily bereft of guiding reason, and unfit for the duties in which they were once honourably, usefully, and even profitably engaged.

This, as well as various other matters, at this time very important to all medical officers of asylums and hospitals for the insane, will, I feel sure, have the advantage of your best consideration during the interval between this and our next meeting.

Dr. Harington Tuke's Paper on the Diagnosis of General Paralysis.

Dr. TUKE read a very careful Paper on the Diagnosis of General Paralysis, as illustrated in the case of Sir Henry Meux, so recently before the Courts.

[Dr. TUKE's Paper, in an enlarged form, will appear in an early number of this Journal.]

Dr. SKAE said—I had prepared a Paper to read before the Association, upon the same subject as I now find Dr. Tuke had chosen; and I will not therefore take up your time by reading it, but will content myself with a few general remarks upon the valuable communication which we have had from Dr. Tuke.

I am, I confess, very much inclined to take different ground from Dr. Tuke with regard to this malady, and to regard it as a general paralysis complicated with insanity, rather than as a form of insanity complicated with general paralysis. And I do so for many reasons, but more particularly for this—that the paralytic symptoms are the essential, the pathognomonic signs of the disease, they are constant, some of them are always present; whereas the mental symptoms are sometimes absent; they vary in their character in different cases, and in their progress and termination. I think I have seen cases of clear and progressive general paralysis, in which there has been no mental affection at all up to the period of death, at least nothing beyond a slight impairment of the mental powers, but without the existence of any delusion.

I think this view of the case, which you will remember is that of several of the most accomplished pathologists of the day, M. Lunier, M. Guislain, and others, is further strengthened in my mind, by many cases I have seen of general paralysis, presenting the well-known and characteristic features of the disease, but which in some respects differed from the disease as it is usually met with in asylums. One case I remember of a patient, who for many years laboured under the peculiar affection of the locomotive powers so characteristic of general paralysis, a want of control over the inferior limbs, a constantly rolling gait, like that described by Dr. Tuke. During all these years he was esteemed as a man of great intelligence. He was ultimately seized with *delire ambitieux*, and died with all the signs of general paralysis running its usual course. As a proof that the progressive general paralysis of this patient was of the same nature as the general paralysis of the insane, I may mention the fact that two brothers of this person both died of general paralysis, accompanied with all its usual symptoms, and running its usual course. From this and similar cases which I have seen, resembling in their history that of Sir Henry Meux in some respects, I conclude that you may have a person labouring under general paralysis for years before there is any affection of the mental powers at all. In one or two of the cases mentioned by Dr. Tuke, the affection of the mind was very slight. I have seen several cases of patients labouring under all the symptoms of general paralysis, who after a time completely recovered their general sanity, so much so, that their wives, brothers, or other relatives, after residing with them for some months, were unable to trace the appearance of any mental impairment whatever. One case which occurs to me was that of a gentleman, a Major in her Majesty's service, who was affected with general paralysis. His speech and gait were both distinctly affected; he fancied he had come to Edinburgh to see Jenny Lind, and that he was a first-rate vocalist; he wrote me a cheque for £75,000,000, and exhibited all the symptoms of general paralysis in its most usual and characteristic form. In four months he recovered his sanity completely, the peculiar gait, however, remained. He lived with his wife for some time, and they and his other relatives told me he was quite recovered, and had never been better in his lifetime. I urged them to get him to sell his commission; but they were so convinced of his perfect sanity

that my advice was disregarded. In a short time he was seized with epileptiform convulsions, of which he died. Now here was a case in which mental sanity was regained so perfectly as to satisfy those in daily intercourse with the patient that he had recovered, while there remained a slow general paralysis affecting the muscular movements. Surely such cases as these tend to show that you may have the disease going on to a fatal termination, without any affection of the mind at all.

Another remark I would make is with regard to the peculiar affection of the muscular powers. I think the name general paralysis is to some extent a misnomer; there is no actual palsy, as you have in cases of local palsy, hemiplegia, or paraplegia. It is the loss of the *directive* power by means of which the individual is enabled to control or direct his movements, and which makes his speech and gait resemble those of a drunken man. I was led to repeat the observations which Dr. Bucknill describes in one of his papers, with regard to the muscular action in cases of general paralysis. Dr. Bucknill conceives, that in cases of this affection, the reflex action is destroyed; and the consequence of this is the destruction of the reflex muscular movements. I have not found this to be the case. I examined several patients in sleep, and found in every case that even when the patient was sleeping sound and snoring, upon tickling the soles of the feet, the limbs were immediately withdrawn. No stronger proof could be found of the existence of the reflex movement. I may mention also, that in one of those observations the case was very far advanced, that of an old lady, who died within twenty-four hours after the observation was made, and the reflex action was found to exist. I repeated the experiments in some of these cases with a galvanic apparatus, and found the muscles to contract under the galvanic stimulus. I find myself corroborated in the statements I have made by Dr. Roberts, in his recent work on wasting palsy, where he gives this as a diagnostic mark of wasting palsy, viz.: that the muscles in wasting palsy do not contract; but that in general paralysis of the insane they continue to contract as in other cases, under galvanism.

Dr. BUCKNILL said he did not make his experiments as to reflex action in paralytics in the night time. The experiments he made were upon paralytics in a waking state, and he found the reflex action of the muscles invariably enfeebled. The observations were made also in patients

somewhat advanced in the disease. In some cases the loss of the reflex action of the spinal nervous system was less marked than in others apparently at the same stage of the disease; but he believed that in all the instances the reflex action was impaired in general paralytics, even in the earliest stage. He had never stated that the reflex function was destroyed; for, of course, when that takes place animal life must cease. There were certain accidents to which it was well-known paralytics were peculiarly liable, which proved, he thought, the correctness of his opinion, that the reflex action in general paralysis was deeply affected. In the normal state of the act of deglutition, the morsel of food was carried back by the reflex action of the muscular part of the mouth and throat, and at the same time the opening of the air passage was closed by the reflex mechanism. But it was well-known to them that in cases of general paralysis, an urgent danger threatened the life of the patient, from the deficiency of the reflex action in this particular spot. The morsel was in many instances not carried back, but stuck in the pharynx, and sometimes a small piece passed into the larynx. This was so serious and imminent a danger, that in his own asylum and in others, every morsel of food which the patients took was previously chopped, so as to make it into a sort of paste, by which such accidents were avoided. This danger of suffocation, in common with many other peculiarities of general paralysis, could only be explained by the impairment of the reflex function. As to the loss of muscular action under the stimulus of the electro-galvanic current, this did not prove the impairment of reflex action, but the impairment of muscular contractility; and he was convinced from experiments he had carefully made, that this also took place in the latter stages of the disease.*

* To elucidate this question, which has so important a bearing upon the pathology of general paralysis, I have recently made the request to the Superintendents of five county asylums, that they would repeat the experiments. Dr. Thurnam was in the peculiar position of not having a single patient with general paralysis in Wilts Asylum. Dr. Boyd, of the Somerset Asylum, was so kind as to test the action of the electro-galvanic stimulus, and of tickling the soles of the feet, upon five patients with general paralysis. The results were as follows: No. 1. The tickling the soles of the feet with a feather, and the electric current applied to the same place, felt slightly. No. 2. The left side more helpless than the right, and the current affected the left leg more than it did the right. No. 3 became noisy when the current was applied, but there was very little muscular excitement. No. 4 laughed much, and the muscles of the legs much excited by the electric current. No. 5 became noisy when the current was applied, but there was very little muscular excitement. The attention of this excellent pathologist was directed to the state of the spinal