Dr. HELEN BOYLE, who exhibited three photographs of a case at Claybury Asylum, said it began as small papules on the right side of the forehead; in the next stage it looked like herpes; after that it developed rapidly, and began to ooze with little points of pus. Opinions as to diagnosis varied between adenoma and epithelioma. It spread over the body in several patches. In the course of a few weeks the trouble had entirely disappeared under antiseptic dressings. It cleared up, leaving a rather bad scar, which was contracting.

Dr. RICHARDS said that it appeared to him that Dr. Hyslop had not clearly proved that the mental disease had anything to do with the skin disease in these cases. Among the large number of cases which had been under his care at Hanwell there were not more of skin disease than would be found among a like number of sane.

Dr. TUKE and another member having referred to cases of skin pigmentation,

Dr. HYSLOP said with regard to what Dr. Stoddart said about the growth of the beard, he suggested that it might be due to the fact that razors were not accessible in asylums, for it was within a few days after admission to the asylum that they began to show hair on their faces.

Epilepsy associated with Insanity.

By ERNEST W. WHITE, M.B.Lond., M.R.C.P., City of London Asylum.

THE object of this paper is to briefly consider the various forms of insanity which are complicated by epilepsy, and for convenience we shall discuss them as they occur during infancy, puberty, adolescence, the climacteric, and the senile periods.

The so-called eclampsic convulsions of infancy from teething, worms, and other reflex irritations are common enough, but fortunately in but a small proportion of cases (probably only about 15 per cent.) does idiocy result. Idiocy and imbecility are frequently complicated by epilepsy, but these conditions do not bear any relation of cause and effect, they march side by side, and spring in most instances from a common origin—some inherited taint of mental disease, from epilepsy, or allied neuroses, or alcoholic intemperance on the part of the parents. The idiot with frequent and early epileptic seizures is incapable of improvement in habits or intellectual development. When the fits do not occur early, and are not frequent and severe, they may to some extent be controlled by drugs, and slight mental amelioration may be effected.

We next come to epilepsy associated with insanity during the period of puberty. When one remembers the great changes,

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mental and physical, which occur normally in both male and female during this period, one is not surprised if any inherited tendency to mental disease or epilepsy then becomes evident.

Epilepsy is pathologically closely allied to the physiological process of blushing so common in the sympathetic period under discussion. I must own, however, that I have seen but few cases of primary insanity of puberty. Nearly all have been sequential to epilepsy or chorea.

Insanity associated with epilepsy during adolescence is very common. The epilepsy has probably first appeared during the period of puberty, the fits have recurred with ever-increasing frequency; irritability, loss of self-restraint, fits of passion, and failing memory have followed—then a maniacal outburst with extreme violence necessitates certification. We are accustomed to observe in the intervals between the attacks the facial expression, or rather the want of it—"the facies epileptica." The patient is mildly demented, and often has widely dilated pupils, the speech is drawling, ideation being sluggish. They usually have abundant hair, which is abnormally moist when the fits occur. There is marked moral decadence, yet often religious fervour. They are at one moment quoting texts, at another swearing, obscene, and lying. They are most quarrelsome, impulsive, and dangerous, and often come to blows. It is an interesting fact that their injuries heal most readily. They are thickset as a rule, with good muscular development, and are coarse feeders, needing aperient medicine once or twice a week. Frequently they have delusions of a religious nature, and of persecution, with hallucinations of one or more of the special senses of the familiar types. These delusions and want of self-control often cause homicidal acts.

The series of epileptic fits may occur at fixed periods, and are of similar duration. If one patient has a fit in a ward another will quickly follow, and certain patients are similarly affected by any loud noise or unexpected nervous shock, such as the shutting of a door, the taking of a bath, or a sudden change of temperature. Some patients are threatening and violent before, the majority after, the fits. In some a maniacal outburst takes the place of these fits—a form of "épilepsie larvée" or "masked epilepsy." The "aura" is seldom present in the epileptic insane, and the "cry" is rarely heard in adults. Each patient falls in his accustomed way, either forwards, back-

wards, or sideways, and there is generally one point of impact. Those who fall backwards often impinge on the occiput with tremendous force, giving the impression that the skull must be fractured. This, however, is a very rare accident, for in chronic epilepsy the bones of the cranium are greatly hypertrophied. The more frequent the seizures, and the more rapid the sequence, the more prolonged is the clonic stage relatively to the tonic—the "status epilepticus" which is symptomatic of nervous and muscular exhaustion, characterised by temperature as high as 106° Fahr. There is a general cerebral congestion, and our treatment must be appropriate. A certain proportion of cases of epileptic insanity are attributed to falls on the head, and on treatment of the exact site of the injury, eliminating hereditary taint, good results from an operation may be anticipated, provided that the disease be not of long standing.

When chronic epilepsy has induced insanity, or occurs concurrently with it, there is always evidence of impaired memory, reasoning power, and change of moral character, involving the feelings, affections, inclinations, temper, habits, and moral dispositions. These patients are inveterate liars, and bring all sorts of charges, based in most instances upon their hallucinations, against their fellow-patients or those in whose care they are. The ultimate goal is dementia, therefore cases of epileptic mania are incurable, except the epilepsy is controllable by medicines, or is connected with pregnancy. Too often these last named become insane during pregnancy, recover after parturition, and again become insane with the next pregnancy.

The incidence of one or more epileptic fits in cases of mania and melancholia of some duration is, as a rule, a bad sign, as it points to active disease affecting the motor tracts being superadded to that of the intellectual centres. There are, however, exceptions to this general rule, for I have had two cases where epileptic seizures have marked a turning-point towards recovery. One was a severe case of protracted mania. After doses of hydrobromate of hyoscine during a maniacal period she had a severe fit, and immediately began to improve mentally. After several months she was discharged, and has for the last two years remained quite well. She had been previously under treatment in several asylums for several years. The other was a male patient, addicted to self-abuse, with a tendency to phimosis. During an operation for the relief of

that condition he had a severe epileptic fit, the first in his lifetime, and from that day he made a good recovery and has kept well. The occurrence of epilepsy in the earlier stages of general paralysis in the insane is well recognised. A fit in a person between thirty-five and fifty years of age, suffering from mania or melancholia, who has never previously had one, often clears up the diagnosis. It points to active changes affecting the convolutions of the motor areas, and as the disease becomes more advanced the tendency to these seizures increases. The epilepsy of general paralysis is marked by the want of tonicity in the fits, the shortness of the tonic stage relatively to the clonic, the tendency of one fit to run into another, until the seizure appears to be a series of clonic spasms with slight intervals. It is completed with extreme exhaustion. Epilepsy, during adolescence, in melancholic cases is rare, except in the form associated with general paralysis. Climacteric insanity is also seldom complicated by epilepsy, but in senility it is common enough, associated with both mania and melancholia. The form is often that of "petit mal," a mere transient unconsciousness during excitement. In these cases the patient not infrequently continues the conversation which had been interrupted by the fit, as if the function of the nerve-cells was temporarily arrested by defective blood-supply. In most instances the heart and blood-vessels have undoubtedly undergone degenerative changes. "Petit mal" is therefore said to induce early dementia, but in these cases both conditions have a common cause—inadequate nutrition of the nerve-cells owing to the defective blood-supply, or impurities in the supply. Cases of senile mania and melancholia complicated by epilepsy occurring for the first time late in life never recover, but soon drift into dementia, and after a year or so, or even in a shorter time, die.

We shall now consider the epileptic records of the City of London Asylum for the past two years, to ascertain how the incidence of fits in the chronic insane is influenced by various conditions.

First as to the moon. It is generally noted in asylums that the chronic insane are more troublesome, noisy, and destructive at the full moon. One steward assured me that there is more crockery broken then than at any other time of the month.

But will not the light nights account for this to a large extent? Our returns, however, show that it is just after full moon that fits are most prevalent in the epileptic insane of the female but not of the male sex.

All female epileptics are more quarrelsome and troublesome at menstrual periods, but a very large percentage are unaffected in regard to epilepsy. As a rule, in my experience, menstruation has no influence in inducing fits. A former superintendent (Dr. Dyer) of the Metropolitan Asylums at Darenth assures me that he has noted that a sudden change in the temperature or atmospheric pressure increased the number and severity of the fits, and rendered the patients more noisy, excited, and troublesome.

Epileptic fits are undoubtedly more prevalent in winter and spring-time. Our records show that most occur in January. February, December, and April follow in order, while there are fewest in the summer months, June, July, and August. I suggest that exercise and the free action of the skin explain this fact, but we have no statistics to show whether epilepsy is as common in the tropical as in the temperate zone.

Our records show that fits in males are two and a half times more numerous by night than by day, whereas in females they are twice as numerous by day as by night. This may be accounted for by the fact that the men are largely employed by day, and the use of their muscles and free action of the skin reduce the tendency. As indigestible food cannot be the cause, I would suggest that the explanation of nocturnal fits is to be found in insane dreams coupled with an abnormally hyperæmic condition of the brain. We may definitely state that the more indolent the epileptic the greater is the tendency to fits by day or night.

The automatic actions of these patients after fits are noteworthy. A man will put his coat on back to front, or apparently with the intent of walking forward will step backwards through a window. Whatever their erratic behaviour may be, they remember nothing of it when they come to themselves. I am one of those who are of opinion that chronic epileptics should be deemed irresponsible for homicidal acts, having seen many cases of epilepsy marked by brutal violence associated with an absolute mental blank as to all that had occurred.

Treatment.—The recognition of the controlling power of the bromides in epilepsy has resulted in epileptic wards being furnished like the others, bright and cheerful, with pictures, birds, books, and flowers, while strong-rooms are seldom used. Yet we have to guard against abuse of these drugs, recognising the enfeeblement and destruction of the nerve-cells which result from large doses of the bromides too long continued. In recent cases, and in those where improvement seems possible, we must carefully regulate their administration. They seem to act by allaying reflex excitability, for in many acute cases, where the action of the drug has been cumulative or the dose excessive, the earliest symptom of danger has been loss of power, of deglutition, and absence of reflex excitability on tickling the fauces. In chronic cases excessive exhibition of the bromides may keep them under. The fits may be controlled, but the advent of dementia is hastened. There are a great many cases in which the bromides do no good, for the number and severity of the fits are not reduced, and in some cases are even increased. Ergot is the only drug in which I have any confidence for these intractable cases; it may be given as liquid extract of ergot, as ergotine, or as citrate of ergotinine subcutaneously. About sixteen years ago I first tried this drug, and obtained excellent results. My statistics, then collected at the East Kent Asylum, were unfortunately lost and publication prevented. In the *status epilepticus* the bromides are worse than useless, for it is a state of exhaustion. A quarter of a century ago we were advised to administer croton oil and the like. Well, these patients practically always died. When it was recognised that the condition is a thorough exhaustion requiring stimulation there was a change of treatment, and a large proportion of the cases recovered. In the *status epilepticus* there is an intense turgescence of the venous sinuses and stasis of the blood-vessels of the brain generally. Depletion by bloodletting is of little service because of this stasis and lack of tone, but we have in ergot a remedy which frequently acts like a charm. We relieve the bowels by an enema, raise the head to assist the return of venous blood by gravity, then give half-drachm doses of the liquid extract of ergot in a little brandy and water between the fits, or the citrate of ergotinine hypodermically in $\frac{1}{200}$ to $\frac{1}{50}$ of a grain in case of difficulty of deglutition. Nitrate

of amyl, digitalis, and chloral have been useless in my experience.

It seems to me that there are two principal forms of epilepsies, the one originating in the nerve-cells of the cerebral cortex (cerebro-spinal), the other primarily in the vaso-motor nerves (sympathetic). The former is that in which the primary nerve storms occur, and the bromides by allaying the reflex excitability prevent explosions. The latter is that in which there is lack of tone in the vaso-motor nerves of the vessels of the cortex, an instability of function in these nerves so to speak, whereby the nerve-cell function is disordered, and it is in these cases in which the bromides are absolutely useless that ergot is of service. Epilepsy can certainly arise from either anæmia or hyperæmia, and this strengthens the vaso-motor theory of the origin of the latter form. The chronic alteration of the brain circulation may also account for the mental enfeeblement of chronic epilepsy. Ergot is undoubtedly a vaso-motor nerve tonic which specially acts upon the vessels of the brain, and should be given for congestive headaches, as well as for epilepsy where the congestion primarily occurs in the venous sinuses.

Discussion

At the Spring Meeting of the South-eastern Division of the Medico-Psychological Association, 1899.

Dr. Fletcher Beach said that his experience was that a small proportion of epileptics very much improved after careful treatment. In clinical teaching he always pointed out to students that these epileptic patients might be divided into three classes—those who entirely and speedily recovered, those who recovered after a number of years, and those who drifted into dementia. A large number died, but an appreciable proportion improved and were cured. Two years ago, in his paper on "Insanity in Children," he had referred to clinical facts in this connection. In the earlier stages, during infancy, they were often delirious, as might naturally be expected. The number of cases of epilepsy increased with age. The removal of portions of the cranium had been followed by wonderfully good results in his hospital practice; but when the cranium was small, because the brain was small, no benefit could ensue. Operative interference was, therefore, limited as a curative measure. As far as his observations went, epilepsy generally begins at night, the reason being that the amount of carbonic acid excreted is much in excess of the oxygen absorbed by the blood. For the last six years he had given directions that bromides must be taken for at least two years after the last fit. With regard to ergotine, its value must depend upon its influence upon the cerebral circulation, and not upon its action upon the heart.

Dr. Bower, while agreeing with most of Dr. White's remarks, held that in his experience epilepsy had generally begun just before puberty. While all the female epileptics under his care had luxuriant hair, all the males were bald, or nearly so. He would supplement Dr. White's paper with two remarks: first, that epileptics should be treated in separate asylums; and second, that they should be kept in bed after the fits. The first had been advocated by Dr. Ewart some years ago, and carried out successfully on the whole; the second had been Dr. Rayner's system at

Hanwell. It was disappointing to hear of the small success of operative measures. He gave bromides sparingly, and was convinced that the constant use of these drugs sent a good many cases into asylums. He had not used ergotine, but commended the employment of Epsom salts as most potent and useful treatment. As to the *status epilepticus*, a stimulant was very necessary. For a good many years he had given injections of chloral with success, while in the control of ordinary seizures chloral with bromides rendered them less frequent and less severe. He did not think that dementia followed so surely on that combination as on bromides alone.

Mr. MACLEAN could not remember any good results from the use of ergot, but believed that the best course was to give small doses of chloral combined with bromides, thus diminishing the number of the fits in epileptic cases.

Dr. WHITE, in replying to the discussion, agreed with the statement made by Dr. Fletcher Beach to the effect that epileptic fits were referable in some degree to the amount of carbonic acid circulating in the blood, as it went to support his opinion and principle of treatment that fresh air and exercise reduce the number of the seizures. His paper was founded on his personal experience and observations, and was exclusive of children, who are not found in asylums as a rule. He regretted that a long series of observations made by him in the Chartham Asylum some fourteen years ago—records of five years' work—had been destroyed, rendering it necessary for him to begin afresh. His experience had differed from Dr. Bower's. He had found chloral of little use in the *status epilepticus;* and, although much hair may fall off, he had not seen frequent baldness in male epileptics. He could see that Dr. Rayner's treatment might be very useful, but had not yet adopted it.

Notes on 206 *Consecutive Cases of Acute Mania treated without Sedatives.*

By C. K. HITCHCOCK, M.D., M.A
Medical Superintendent, York Lunatic Hospital.

DURING the sixteen years I have been at York 206 cases of acute mania have been admitted, inclusive of 29 relapsed cases occurring in sixteen individuals. Of these 206 cases, 171 have recovered, 8 have died during the attack and because of the mania, and 3 have died during the attack from intercurrent bodily diseases, 12 have been discharged relieved to the care of friends, 7 were transferred to other asylums, and 5 remain under care.

The average period under treatment was for males three and a half months, and for females five months, with the addition, in many cases, of one month at home on trial before discharge. Seven cases recovered after one year, and 2 after three and five years respectively.

The ratio of recoveries to the number of cases under treatment is 83 per cent., the ratio of deaths is 3·8 per cent.

The point to which I wish to call attention is that, excite-

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