"a flat forehead, the head raised behind, a wide bellowing throat, and a thick tongue adherent to the gums." Unhappily there is no description of the "wild sheep."

For an account of other cases of a similar kind the most accessible reference is the paper of Mr. Tylor. The same explanation seems to do for them all, that idiots have occasionally been found straying in the woods, and that people accounted for their wildness and stupidity, their want of speech, and their abnormal sense of taste, by supposing that they had been brought up by or lived in the company of wild beasts.

The notion that the cruel wolf—the terror of mothers for so many ages—or the shaggy and formidable bear had sometimes spared the innocents whom it had snatched from the cradle, or found wandering in the fields on the borders of the old forests, would be a myth agreeable to the traditions of the nursery.

The Morisonian Lectures on Insanity for 1873. By the late DAVID SKAE, M.D., F.R.C.S.E., Physician-Superintendent of the Royal Edinburgh Asylum, &c., &c. Edited by T. S. CLOUSTON, M.D., F.R.C.P.E.

(*Continued from page* 20, *Vol.* XX.)

LECTURE IV.

All the forms of insanity we have hitherto been considering have been more or less connected with the sexual organs or sexual functions and conditions, with the exception of the first and last—the epileptic and phthisical insanity. The forms which follow are mostly connected with disease of the body, affecting the brain sympathetically, or disease of the brain acting on its functions directly.

Traumatic Insanity.—The first form we come to is that of Traumatic Insanity, by which term I mean insanity brought on by *blows* or *falls* on the *head*, or by *sunstroke*.

The pathological condition of the brain and its membranes, that of hyperæmia, is the same in both; and the mental symptoms also almost identical. I include them both, therefore, under one name.

I beg to remark that I am not describing the effects of blows on the head generally—fractures, coma, phrenitis, &c., but only those cases which end in insanity.

The effects of blows on the head and of sunstroke are in some respects very remarkable. Sometimes they do not shew themselves in insanity, epilepsy, or by any other obvious symptom for many years after the blow, or sunstroke, although all this time there may be symptoms which connect the blow with the coming insanity, such as pain at the seat of the part struck, irritability of temper, and changes in the disposition. At last the insanity bursts out in some attack of mania, or in a series of epileptic fits, followed by mania.

Such a case I have under my care now. The gentleman was thrown out of a carriage in India, and landed on his head, where there was a well-marked cicatrix. After rest and care he apparently recovered, and kept well for six years, when he came home on leave of absence. Soon after his arrival here he was seized with epileptic fits, followed by a maniacal paroxysm and fury. For eight or ten days he spun round and round, from left to right—sometimes lying, sometimes sitting, sometimes on his head.

In his sane intervals it was noticed that pressure over the cicatrix on the left parietal bone produced rigidity of the right arm. The violence of this patient was of the most sudden and impulsive kind I ever saw. I have seen him while chatting pleasantly over a rubber of whist, suddenly perform a summersault over the table, upsetting everything, and if not immediately held by one or two strong men, he would have assaulted everyone right and left, without knowing what he was about.

I induced Professor Syme to trephine and remove the portion of bone under the cicatrix. I do not think we hit upon the exact spot, but half the removed portion was thickened, and the groove for the artery was shallowed. He had one of the maniacal attacks after the operation, but then they ceased, while the epileptic fits continued. After a short time he was removed and lived with his friends for thirteen months, but as the fits continued to recur, and slight family causes annoyed him, he came back voluntarily, remaining sane, with one or two trifling exceptions of a transient kind, for some six or seven years, and suffering at monthly intervals from fits, which, however, were diminished in frequency and violence by the regular use of the bromide of potassium.

In another case the patient sustained a severe contusion of the hinder part of his head without fracture. This was followed by phrenitis, and this, as it passed off, left the patient insane, with morbid symptoms of pride, extreme optimism,

and delusions of exaltation, such as that "he is a master joiner, that he is so successful at his trade, that he will soon earn upwards of £150 a week."

This man was soon afterwards removed, and his subsequent history was not traced.

In another case an intelligent boy of 5 years of age was struck with a ruler behind the ear by his schoolmaster. There was swelling and ecchymosis, but no fracture. The boy became stupid and silent, ceased to speak for a time (some six weeks), then began to talk nonsense, and gradually became noisy at night and a great swearer; very violent, and of dirty habits. After 11 or 12 years, getting gradually worse, he took a succession of epileptic fits and died.

In another case a sailor received a violent blow on the head, followed by several attacks of insanity both at sea and on shore.

Before admission he had followed a gentleman through the streets with a knife and threatened to stab him.

He expressed the following delusions:—That he was a descendant of the Royal family; that another man's wife was his wife; that the souls of other men took possession of him, and his soul possessed them.

He gradually deteriorated, and became more and more incoherent, although he still retained his delusion as to his high descent, and the belief that he must kill somebody.

The cases of insanity from sunstroke are very like those I have described. At first maniacal, then moody, suspicious and distrustful, fancying that they are persons of high rank. I had an Earl of Dalhousie and afterwards a Duke of Gordon, both Indian officers. The Duke was very dangerous, attempting to approach his attendant with a knife or poker concealed behind, determined to "have a life," as he always said, which he considered to be necessary for him as the possessor of the "Sword of Justice," a special gift belonging only to the head of the Gordon family.

One more characteristic case, and I finish. A young officer, then in India, became insane after sunstroke, and continually complained of his fellow officers poisoning his food. To avoid this annoyance they persuaded him to sell out. He took his passage from Calcutta for England, but the passengers seeing his insanity refused to travel with him, and the Captain landed him at Madras, giving him back half his passage money. After waiting some time he got a passage by a sailing vessel to England, and on his way

home, he felled the mate of the vessel with a large mallet, was put in irons, and on his arrival was handed over to the authorities to be tried, being in the meanwhile placed in Newgate. On the interposition of his relatives, he was released and put under my care. He was generally morose, but joined in the amusements of the other patients, playing cricket, billiards, bowls, and taking long walks, but he never lost sight of the necessity laid upon him to kill somebody. He left me, and has boarded in various houses in the country under the charge of an attendant, upon whom he has made some murderous assaults.*

These cases were drawn from the records of my own cases in the Royal Edinburgh Asylum. They, and a few others, are given at greater length in the "Edinburgh Medical Journal" for 1866, in a very good paper, in which the writer sums up his conclusions as follows:—

1st.—That traumatic insanity is generally characterised at the commencement by maniacal excitement, varying in intensity and duration.

2nd.—That the excitement is succeeded by a chronic condition, often lasting many years, during which the patient is *irritable, suspicious, and dangerous* to others.

3rd.—That in many such cases distinct homicidal impulse exists.

4th.—That the characteristic delusions of this form of insanity are those of *pride, self-esteem and suspicion*, melancholia being very rarely present.

5th.—That this form of insanity is rarely recovered from, but has a tendency to pass into dementia, and to terminate fatally by brain disease.

6th.—That the symptoms, progress, and terminations of insanity resulting from traumatic causes, are sufficiently distinctive and characteristic to entitle it to be considered a distinct form of insanity.

Rheumatic Insanity.—The next form of insanity in my table is rheumatic insanity—a form which has, I think, been long recognised as a distinct disease. I was myself one of the first to recognise the connection between those two diseases and induced an assistant of my esteemed predecessor, Dr. Mackinnon, to write his thesis on this subject when he became an F.R.C.S.E. in 1845. I think the thesis was not

* A characteristic and most interesting case of "Traumatic Insanity cured by Trephining," is recorded by Dr. C. Holland Skae, in the "Jour. Ment. Sci.," for Jan., 1874.

printed, and we cannot, after a careful search, recover it. I know it adduced a number of cases from the records of the Edinburgh Asylum in proof of the frequent connection between insanity and rheumatism.*

We shall, however, consider the rheumatic, choreic, gouty, and metastatic forms of insanity in succession, they having a strong resemblance to each other, not so much in their symptoms, as in their direct dependence on bodily diseases whose manifestations are ordinarily confined to the joints or other parts, but that seem in those forms of insanity to leave their usual habitat, and attack the brain. The first and the two last form Dr. Batty Tuke's class of "Metastatic Insanity."

Rheumatic Insanity is a comparatively rare form of mental derangement, but one of the greatest interest pathologically, and on account of a singular combination of bodily and mental symptoms. It is one variety of what has been called cerebral or cerebro-spinal rheumatism. As he mentioned in the first lecture of this course, Dr. Skae's attention had been directed to the connection between insanity and rheumatism in 1845. Griesinger and Flemming were the first to illustrate this connection by the publication of well marked cases. Without entering upon the general question of cerebral rheumatism, I shall describe the symptoms that may be deemed characteristic in the cases that can be properly reckoned insane: but the real interest of the disease consists not in a consideration of these cases by themselves, and still less in an exclusive attention to the mental symptoms present in them. The chief interest of cerebro-spinal rheumatism lies in the fact that it is an example of an affection, whose ordinary symptoms and course are well known, assuming an entirely new form, in which it attacks the whole of the nervous centres.

The ordinary course of an attack of rheumatic insanity may be thus described:—A patient labouring under acute or subacute rheumatism suddenly ceases to complain of the pain in the joints, and simultaneously shows signs of mental excitement of a peculiar delirious type. At first external impressions from the senses seem to produce no effect on the brain. The patient takes no notice of what he hears or sees, and ceases entirely to suffer or fear pain. To this succeeds intense delirious excitement, with violent ungrounded fears, and an utter carelessness of the consequences of jumping through

* The portion of these lectures finished by Dr. Skae ends here.

windows, or throwing himself against walls or anything of that sort. He does not sleep. As he improves, which usually takes place in a few days, there is sluggishness and torpor and confusion, sometimes depression of mental condition, with suspiciousness, taciturnity, and languor, the whole course of the disease lasting from one to two months. When the patient recovers he has no recollection whatever of anything that has occurred from the time he was lying suffering from the swollen and painful joints. The period of his attack has been a blank to him.

Such are the purely mental symptoms, but accompanying these, beginning along with them, varying in their intensity as they vary, and passing off as they disappear, there are a series of most interesting bodily symptoms referable to the nervous system. At the time when the first mental symptoms appear the swelling of the joints begins to abate, but the high temperature continues. At the same time choreic movements of almost all the voluntary muscles in the body commence, and sometimes are so violent that the patient cannot remain still for a moment. His features are contorted, his head jerks from side to side, his limbs are thrown about, and his body is raised up and down. Those movements follow the mental symptoms in their intensity generally, but do not disappear so soon. Sometimes they persist for some time after the patient is quite well in all other respects. Along with the choreic movements hallucinations of the senses show themselves. Bright dots are seen before the eyes at first. One of the patients saw an old woman who came and ate her food, and affirmed that one of her feet was cut off; another said his food tasted like poison. The power of voluntary movement is always very much interfered with by the chorea, but in one of the cases the violent choreic movements of the legs was succeeded by complete temporary paralysis, showing that the former was from the same cause as the latter, and only a preliminary stage of the morbid pathological condition. The bladder was paralysed in one of the patients, requiring a catheter to be used.

The reflex action of the spinal cord is increased at the beginning, then deadened, and during the paralytic stage is quite abolished. The common sensibility is usually increased at one stage of the disease, or appears to be so, but this cannot be accurately determined on account of the mental state of the patient, being more of a subjective symptom, and being difficult to distinguish from heightened reflex excitability.

One of the patients had a sensation of heat in his legs during convalescence, showing a condition of hyperæsthesia.

The last function of the nervous system affected in those cases is that of nutrition, as evidenced by the very great tendency to the formation of bed sores during the paralytic stage. As all the symptoms tend to become relieved the temperature falls, but this is down to its normal rate long before the chorea, &c., disappears. The great acidity of the urine present during the ordinary rheumatic symptoms remains during the height of the nervous affection, and passes away along with it.

No one can doubt that the insanity and the other nervous affections existing in those cases are all due directly to the rheumatism, which thus is the cause of a specific and defined neurosis. Does this result from a metastasis of the rheumatic affection of the joints to the nervous centres? Undoubtedly this is usually the case, but it does not follow that the rheumatic condition is confined to either of them exclusively. In one of the patients we had, who laboured under this disease, she had a slight relapse of the symptoms when she was nearly well, and she had at the same time swelling of one hand, and also aggravated choreic movements, sleeplessness, and an increase of temperature.*

Can we form any legitimate theory as to the pathology of this disease from its symptoms? We know that the rheumatic condition or poison, whatever it is, has a special tendency to attack the connective tissues, causing transitory inflammation, infiltration, and loss of function in the parts adjacent. Do not the symptoms I have described indicate a serious but transitory interference with the functions of the nerve cells and fibres of the great cerebro-spinal centres, such as might be produced by slight rheumatic inflammation and infiltration of the connective tissue, causing pressure on the nerve elements? The raised temperature, the strongly acid urine remained the same whether the rheumatic inflammation was in the joints or in the cerebral nervous system; but when this inflammation had passed away the delicate nerve mechanism was, of course, long in perfectly regaining its functions. We formed and expressed this theory in regard to the pathology of the disease three years ago, and a case under care at present seems strongly to confirm it. It is that of a woman who had an attack of rheumatism

* "Jour. Ment. Sci.," July, 1870.

followed by rheumatic insanity some years ago, but instead of recovering as the other cases did whom we had seen or read of, she remained permanently paralysed in her legs, with choreic movements of her arms and face, and her mental state one of torpor and vacuity, and of this condition she is now dying. No doubt in her case the rheumatic infiltration of the connective tissue has proceeded to such an extent as to injure permanently the nerve elements.

Rheumatic insanity is ordinarily a very curable disease, running a short and remarkably definite course.

It may be pronounced as, next to general paralysis, the most distinct and true disease, as to symptoms, cause, and pathology, of any of the forms of insanity.

Choreic Insanity.—The form of insanity connected with chorea is in every way allied pathologically as well as in its symptoms to the rheumatic insanity. The intimate connection of chorea with the rheumatic condition, first pointed out by Dr. Copland, is becoming more and more an accepted belief in medicine. Chorea itself has been very correctly described as an insanity of the motor centres. Certainly no condition of those parts of the central nervous system which regulate and control muscular movements is so analogous in every respect to the state of the brain convolutions in insanity, judging from the symptoms present. It is generally believed that St. Vitus's dance may occur without any mental impairment, but some authors doubt whether this is ever so. Dr. Arndt, a very competent German observer, who has devoted much attention to the subject, "does not believe in the existence of chorea without more or less simultaneous affection of the intellectual faculties. The abnormal movements are mere symptoms of a much more extensive disorder involving the entire nervous system, and never confined in their effect to the spinal cord. The so-called pure chorea, in which mental symptoms are said to be absent, but in which they are in fact only feebly manifested, is really the mere fore-runner of a more freely pronounced psychosis. But just as every morbidly depressed emotion and every morbid exaltation of consciousness does not necessarily lead to melancholia, mania, or dementia, so neither does chorea."*

But be this as it may, there is no doubt that chorea is very often accompanied by a marked form of mental derangement.

* Dr. Sibbald's translation in "Jour. Men. Sci.," Jan., 1870.

Dr. Maudsley has described it very well, and most of us have had occasion to confirm his views from our personal experience. He even recognises and describes a form of insanity in children, as choreic, which is accompanied by none of the motor symptoms of chorea. He thus describes choreic insanity or choreic delirium. "What is sufficiently striking even to an ordinary observer of this delirium is its marked incoherency, and the manifestly automatic character of it. It might, indeed, appear that the cells or groups of cells of the primary centres had been dislocated from their connections, and that each cell or group of cells was acting on its own account, giving rise thereby to a sort of mechanically repeated and extremely incoherent delirium. A boy of about eleven years of age, who came under my care, was, after a slight and not distinctly described sickness, suddenly attacked with this form of delirium; he moved about restlessly, throwing his arms about, and repeating over and over again such expressions as—"The Good Lord Jesus." "They put Him on the Cross." "They nailed His hands," &c. It was impossible to fix his attention for a moment. As far as could be made out, there was considerable insensibility of the skin over certain parts of the body. In two days, after appropriate treatment, the delirium passed off, and the boy was quite himself again. This may be regarded as the type assumed by the acute form of choreic insanity, and you will see how extremely like it is in its general features to the rheumatic insanity with chorea. In fact, the two diseases are the same, both being primarily dependent on the rheumatic conditions, in the one case occurring in childhood without any actual arthritic rheumatism, in the other in more advanced life as a part of such an attack, with the fever and inflammatory symptoms that characterise it.

In proof of this theory, one of our cases of rheumatic insanity had had two attacks of chorea previously—one at the age of seven, caused by a cold, and another at the age of thirteen. He was nineteen when he had the attack of rheumatism succeeded by the rheumatic insanity.

The acute choreic insanity of infancy and youth, like the rheumatic insanity, is ordinarily a very curable disorder, and of short duration.

There is a form of insanity, or rather mental imbecility, that accompanies, and results from long-continued chorea, of a different kind from the one we have been describing. It is, in fact, the ordinary dementia that follows all long-con-

tinued mental derangement. It results partly from arrested development of the brain, and partly, no doubt, from degeneration of its structure.

There is still a third variety of what may properly be called insanity with chorea, viz., that exemplified in those wonderful epidemics of St. Vitus' dance, affecting thousands of persons by a morbid sympathy and imitation, that used to occur in the middle ages.

Podagrous Insanity.—This is a rare disease—more rare than that of rheumatism. The occurrence of various nervous and mental symptoms has been mentioned by all writers on gout. Sydenham particularly mentions them.

He says, "The body is not the only sufferer, and the dependent condition of the patient is not his worst misfortune. The mind suffers with the body, and which suffers most it is hard to say. So much do the mind and reason lose energy, as energy is lost by the body, so susceptible and vacillating is the temper, such a trouble is the patient, to others as well as himself, that a fit of gout is a fit of bad temper. To fear, to anxiety, and to other passions the gouty patient is the continued victim, whilst, as the disease departs, the mind regains tranquillity."* He also mentions deep melancholia as occurring in the course of the disease. I mention these because, as a general rule, all the neuroses that occur in the course of any disease have borne relation to each other, and the irritability so well described by Sydenham is just as much the result of the gouty poison or condition, acting on the brain convolutions, as the real insanity I am about to describe. The purely nervous symptoms are better known and more referred to in medical literature. The neuralgia, the paralysis, epilepsy, hysteria, and apoplexy, all these show the occasional tending of the disease to attack the nervous system. Garrod describes "Gouty Mania" as occurring immediately after the cessation of the affections of the joints, and as being characterised by acutely maniacal symptoms, with heat of head and fever. In one such case which he mentions, all these symptoms at once disappeared when one of the great toes became hot and painful. Such cases appear never to require asylum treatment. The slighter cases rapidly terminate favourably, and the more severe cases assume the form of congestion or inflammation of the membranes of the brain.

This form of mental derangement, having been hitherto

* ("Syd. So. Trans.," Vol. ii, p. 128.)

viewed as a mere complication of gout, the psychical symptoms have not been so minutely described as is desirable, and require further clinical elucidation, but on the whole, Trousseau's description of it is the best, because he simply describes the cases he had seen. One of his cases,* a man forty years old, of good constitution, who had been subject to regular attacks of gout from the age of twenty-five, began to take anti-gout medicines regularly on the coming on of the paroxysm. The patient, at the end of some years, instead of having the ordinary irritability and lethargy accompanying the attacks, became quite maniacal, and as the gout became chronic and atonic, he became brutish and demented without paralysis, and died in a state of coma. He mentions two cases of the apoplectiform metastatic gouty mania which were produced by the sudden application of cold water to the gouty feet, and relieved by sinapisms to the feet.

Comparing the rheumatic and gouty insanity, so far as the imperfect clinical history of the latter will enable us to do so, we see that the points of resemblance are the metastatic character of both, and the decided feverishness that ushers in the attacks, being the ordinary fever of each disease continued on during the cerebral attack, even when the local affections cease; the points of difference are the absence of chorea in gout, and the presence of an apoplectiform congestive condition instead. The rheumatic affection always has cerebro-spinal symptoms, the gouty cerebral alone. As we have hazarded the theory that the former is due to an affection of the connective tissue between the cells and fibres of the brain and cord, the latter seems to be due to an affection of the membranes of the brain, and this is confirmed by the *post mortem* appearances of one of Trousseau's cases, where there was infiltration of the membranes, serous effusion under them, and some adherence of them to the brain substance.

Metastatic Insanity.—An outbreak of insanity immediately following, and apparently caused by, the sudden stoppage of a chronic discharge, the healing of an old ulcer, the curing of hemorrhoids, the non-appearance of the usual symptoms of ague when it should have occurred—insanity in all these circumstances has been described, and we have ourselves seen more than one of those forms. Such attacks, no doubt, from their having an appearance of mystery, and admitting of any sort of recondite explanation which

* Trousseau, "New Syden. So. Trans.," Vol. iv., p. 384.

the ingenious fancy of the writer could invent, were great favourites with the old authors. They were one of a series of phenomena which held the place in their works which the sympathetic system of nerves and mesmerism do in modern times. No one can possibly refute any possible theory about them. Such theories even sound psychologists will say are absolutely indispensible in this, still not quite perfectly, scientific age. But the facts in regard to metastatic insanity were no doubt in the main correct, if the theories by which they were explained were doubtful.

The ordinary symptoms of metastatic insanity are those of sudden acute mania approaching delirium, preceded by fulness and pain in the head, and accompanied often by feverishness, full pulse, and some of the symptoms of inflammation of the membranes of the brain. In the case of attacks following the sudden disappearance of erysipelas they are distinctly inflammatory in their origin. We once had a woman as a patient in whom the symptoms were those of melancholia, after the healing of an old-established ulcer of the thigh; but such cases of depression are rare. In that case no artificial counter-irritation had any effect in benefiting the mental symptoms, but at the end of a year the ulcer broke out afresh, and she soon got well.

The ordinary acute metastatic cases with maniacal symptoms are of short duration, the brain being apparently excited into abnormal activity, more by some reflex influence than anything else; but when there are inflammatory symptoms present the cases assume a very much graver aspect. Such cases as that related by Esquirol, of a girl in whom menstruation had been suddenly stopped, and who recovered her senses immediately the catamenia began to flow, belong to the metastatic group of cases rather than the amenorrhæal. All these cases are strictly analogous to those in which attacks of epilepsy supervene immediately after the healing of ulcers, &c. In both cases no doubt there is a predisposing cause in the central nervous system being very excitable and unstable in its equilibrium, but in the one set of cases the cerebral convolutions are the weakest point, and in the other the medulla oblongata or such other purely motor centres.

(To be continued.)