cations of iodised oil to the part, the solution consisting of fifteen or twenty grains of iodine in one ounce of the expressed oil of almonds; I find oil of almonds preferable to olive oil, as less disagreeable to the taste. Should there be any thickening of the part, either syrup of iodide of iron or iodide of potassium is given internally, and iodised oil is also rubbed externally on the throat two or three times a day. The treatment of tubercular disease of the epiglottis and of the larynx is unsatisfactory, although the acute symptoms may be much relieved and the patient made comfortable. Iodised oil, or the application of anodynes, often proves of benefit. I have in one case applied solid nitrate of silver to the epiglottis affected with tubercular disease, in accordance with Dr. Krishaber's suggestion, and using his laryngeal caustic-holder: the patient felt no pain whatever, and the result was encouraging. Inhalations of iodine I have never found of any use in the treatment of tubercular or syphilitic disease of the epiglottis or larynx; during the state of active inflammation they may produce much distress and increase of pain from local irritation without doing any good ultimately.

I beg finally to relate an interesting case of laryngitis I met with last season at Cannes. An English lady (aged about 32) had suffered in Paris about two months before I saw her from an attack resembling *ozæna*. It appeared from her statements that the mucous membrane of her nose, down to the soft palate, had been inflamed. After this, the pharynx also became the seat of inflammation, and the affection spread to the larynx. Before leaving Paris, however, she had partly recovered; the inflammation of the larynx alone remained. Finding that her health was not making any further progress, she came to Cannes, where I first saw her on March 3rd. She then suffered very much from laryngeal distress. The inside of her larynx was very painful, and she often felt as if a foreign body were lodged in that part. She frequently suffered at night from a sensation of impending suffocation attended with much distress in the throat, which made her anxious. She could now swallow without any difficulty or pain, although she had experienced pain on deglutition; there was a slight degree of hoarseness, but no loss of voice.

A careful examination of the chest revealed nothing but slight harshness at one apex. At first, I experienced some trouble with the laryngoscopic investigation from the contractions of the pharynx, but this was overcome by applying a bag of ice and salt externally to her throat. I was much surprised to find the epiglottis neither inflamed, swollen, nor pendulous; indeed, it was quite healthy; the arytenoid bodies were not enlarged, and the epiglottidean folds were healthy. The mucous membrane of the larynx alone appeared very red and congested.

I treated this case with the direct application of iodised oil to the larynx, inhalations of iodine, and injections into the throat of a solution of chlorate of potash and bromide of potassium. Internally, she first took syrup of iodide of iron, and afterwards chlorate of potash.

The case progressed very satisfactorily, and although the lady had one or two relapses, she had quite recovered by the end of March. (I have no record of the precise date of her recovery.)

This case is interesting, showing that laryngitis may be attended with much pain and distress without extending to the epiglottis or vocal cords, and also that inhalations of the vapour of iodine, which appear objectionable where the epiglottis is inflamed, may be useful where the mucous membrane of the larynx alone is affected.

NOTES OF A CASE OF SPONTANEOUS FRACTURE OF THE HUMERUS AND FEMUR, RESULTING FROM DEGENERATION OF THE BONES.

By P. MAURY DEAS, M.B. LOND.,

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MORE than ordinary interest, both medical and medico-legal, attaches to the subject of broken bones among the insane. The tendency which still exists in the public mind to believe anything bad regarding an asylum, and especially to believe that instances of cruelty and assaults on the part of the attendants are of frequent occurrence, is in the main a legacy from the times, not yet very distant, when restraint and coercion, with their inevitable attendants, neglect and cruelty, were the recognised means of "treatment" (?) for the insane. It takes a very long time to convince people that abuses of any kind, which have long been practised and have grown into a system, are really reformed; and prejudice clings round the institution long after it is free from the old evils.

The feeling of distrust and suspicion, as to asylums, is still so strong that, when any case of injuries received by a patient is made public,

the idea of their having been received unavoidably or accidentally is rarely entertained; but the conclusion is come to at once that, because there are injuries, there must have been intentional cruelty or great undue violence.

It accordingly, I think, becomes the clear duty of those who are not only interested in the reputation of our asylums, but who have the best interests of the insane at heart, to put prominently forward any facts or circumstances which go to show that serious accidents may not only occur to the insane, when treated with every care and attention, but are more likely to occur than among other classes of people. It is now a well established fact in pathology that, in certain forms of insanity and affections of the nervous system, there is a tendency to a form of degeneration in the osseous tissue, leading to a brittle and softened condition of the bones, such that they are liable to break under the application of very slight force, or spontaneously from muscular action. The existence of this diseased state of the bones has been proved by the observations of Clouston, Rogers, and others. It appears chiefly to occur in cases of general paralysis and other allied forms of nervous degeneration.

Cases occur, from time to time, which revive in all their force the ideas of gross cruelty on the part of attendants. A patient dies in an asylum, and, after death, extensive (perhaps unsuspected) fractures of the ribs and sternum are discovered, such as in a healthy subject could only be caused by great direct violence. As a rule, the patient has been very restless and violent; probably in the acutely maniacal stage of general paralysis. The attendants have been compelled to hold or restrain him; possibly there have been unavoidable struggles in putting him to bed, getting him up, etc. If, at the inquiry, one or two fellow-patients can be produced to testify that one attendant kicked the patient, while another jumped on him, the case is perfectly clear; and the public, if not the jury, record another verdict against asylum treatment. Now, it has been repeatedly demonstrated, by *post mortem* examinations on the insane, both in cases where broken bones were found and also in cases where no such injuries existed, that there was such a diseased condition of the bones, and more particularly of the ribs, they would be liable to give way under the application of very slight force, much slighter force than would be quite unavoidable in a struggle between an excited patient and his attendants, even when the latter used every care. And as to the evidence of other patients, every one familiar with insanity knows that there are patients who, either from delusions or moral perversity, will constantly accuse, not only the attendants, but the medical officers themselves, of acts of cruelty, either to themselves or other patients, and giving most circumstantial accounts of the occurrences. This particularly applies to epileptic patients, who are often, too, apparently the most sensible and rational.

In the last notorious case of this kind, the death of Mr. Wimberley in the Camberwell House Asylum, sufficient attention does not seem to have been given to this most important question of the state of the bones. The medical evidence, as reported, was of a very casual nature, and contradictory as well; but one witness stated distinctly that he considered the ribs unusually brittle. In such cases, the condition of the bones ought to be the primary consideration. If they be sound and healthy, there cannot be a doubt that, with a number of ribs and the sternum broken, great undue violence must have been used. If, on the other hand, the bones be in the diseased state which has frequently been observed, the injuries may have been received in the most purely accidental way, either by the patient throwing himself about in his excitement, or by the necessary restraint on the part of the attendants to *prevent* his throwing himself about; and, in common justice, a conclusion as to cruelty or undue violence having been used should only be come to upon the most undeniable evidence.

From the considerations which I have alluded to, I think it of importance to place on record the notes of a case which has recently occurred in my own practice.

H. N., female, aged about 57, was admitted into the asylum as a private patient, on December 17th, 1875, under an order of transfer from the Birmingham Asylum, where she had been under treatment for twelve years. Her mental state was that of chronic mania, passing into dementia. Her mind was weak and childish; but she understood what was said to her, and could answer ordinary questions sensibly enough. At times, she was excited and noisy. She was very feeble and broken down in health, and was partially paralysed in her lower extremities, not being able to walk or even stand without assistance. She suffered much from pains in the back and legs, and often screamed out from the pain. She had a weak, probably fatty, heart, and suffered from chronic bronchitis. She continued very much in the same state, requiring care and nursing, but never violent, indeed too helpless to be so. On June 1st of this year it is noted that "she is more frail than she was; mostly confined to bed; is becoming more deformed; cannot straighten her-

self; back very much curved and head sunk down. When in bed, always lies with her legs drawn up on her body." I take the following from the Case-book, under date July 31st. "Has been just about the same since last entry, not any worse; and of late has been up, as a rule, during the day. Soon after 5 o'clock this morning, the assistant medical officer was summoned to see her, as there appeared to be something the matter with her left arm. She had complained of its hurting her to the night nurse at her last visit, at 5 A.M. On examination, the left humerus was found to be fractured obliquely at the lower third, the upper point of the lower fragment being nearly through the skin. The patient stated that she did not know how it was done; that she did not feel anything wrong with it till towards morning, when it felt painful, and she told the night-nurse that 'something had come to her arm'. She had not hurt it that she knew of, and no one had done anything to her. The night-nurse said that she had been very frequently into the dormitory (containing four beds) during the night, as there was a patient very ill in it. H. N. had not complained till her visit at 5 o'clock. The only further fact elicited by inquiry was that the previous evening, between 7 and 8 o'clock, while one of the nurses, assisted by a patient, was conducting H. N. from the day-room to the dormitory, the patient helping tripped and fell; and in consequence of this H. N. fell over on one side, but she did not appear hurt in any way, and made no complaint while being taken to the dormitory. Another nurse assisted her into bed; she did not notice anything amiss, and H. N. did not complain or seem in pain. The latter, when asked about the fall in the passage, said she recollected it; that it was quite accidental, and she did not recollect being hurt then; and repeated that it was not till it was getting light that she felt anything wrong with her arm. The fracture has been put up in the usual way; but owing to the general deformity, and also to the obliquity of the fracture, more than usual difficulty was experienced in doing so.—August 5th. Going on as well as can be expected. Was kept in bed for a few days, but gets up now and sits in an easy chair. Is very restless, and if not closely watched, interferes with the bandages.—August 10th. Up to last night, patient was going on very well, when a most extraordinary complication presented itself. About a quarter to 7, Dr. Deas was summoned to see her; that she had complained of her left knee, with which there seemed to be something the matter. Dr. Deas found her seated on a commode in the dormitory, and at once discovered that the left femur was fractured nearly straight across, a few inches above the knee-joint. There was slight fulness, but no mark or discoloration of any kind. The charge-nurse of the infirmary said that a few minutes before she had wheeled H. N. along in her easy-chair from the day-room. She had then brought the commode and placed it close by the chair, and then she had lifted the patient up by her arm and shoulders and just shifted her from the easy-chair on to the commode. As soon almost as the patient was set down on the commode, she put her hand down and complained of her knee. The nurse looked at it, saw something was wrong, and sent for Dr. Deas. The latter had seen H. N. about 4 in the afternoon. She was then sitting in the easy-chair in the ward. She was as usual, and complained of nothing particular. When Dr. Deas saw her, the easy-chair was on the left inside the dormitory door, and the commode was touching it and at right angles, so that she could have been moved from one to the other with very little effort. H. N. herself said that she felt something give way in her knee all at once just as she sat down on the commode, and made no complaint of any roughness or carelessness. The patient was put to bed, laid on her right side, and the fracture put up by means of two lateral splints, the knee being bent and the thigh flexed. No difficulty was found in reducing the fracture and retaining the fragments in pretty good position. This second fracture occurring after the first, and in a situation where, as a rule, fractures only occur from great direct violence or a fall from a considerable height, seems to point to only one conclusion, viz., that there is in this case that morbid condition of the structure of the bones, under which they are liable to give way spontaneously, or from very slight force or exertion."

I need not enter into details as to the further progress of the case. The patient did pretty well for a short time; but extensive bed-sores then formed, broncho-pneumonia supervened, and the patient sank in about three weeks from the date of the second fracture.

At the *post mortem* examination, the usual signs of broncho-pneumonia were present, and the heart was in a state of fatty degeneration. The diagnosis as to the condition of the bones was amply confirmed. The ribs were reduced to the thinnest shell of bone, as thin as paper, the interior consisting of very open cancellated texture, and dark soft grumous matter, which oozed out at each end when a portion of rib was squeezed between the finger and thumb, by which pressure the two surfaces could be approximated close together. The ribs, moreover, could be cut quite readily with a knife, either transversely or longitudinally,

and broke with a soft rotten sort of fracture under very slight force. I broke a portion of rib, about one and a half inches long, in two by snapping it with the fingers of both hands, as one would break a piece of stick. There was no fracture of any of the ribs, nor of any of the bones, except the left humerus and left femur. On cutting down at the seat of these fractures, there was hardly any attempt at union, although a considerable quantity of soft rotten callus had been thrown out. The femur and humerus were in the same state as the ribs, the external dense structure being a mere shell, through which I pushed a scalpel quite easily, the interior being composed of very open cancellæ and matter similar to that in the ribs.

I have not myself had an opportunity of witnessing the degree of degeneration of the osseous structure, which has been found in some of the recorded cases of extensive fractures of the ribs, etc.; but if it were anything approaching to the state of matters in this case, one could not be surprised at any amount of fractures, especially if the patient had been *at all restless or violent*, and without supposing that there had been the least ill-usage or undue violence. The moral of our case is very plain. Had this poor woman, instead of being quiet and helpless, been a recently admitted case labouring under acute mania, restless, violent, knocking herself about, rendering holding and a certain amount of restraint necessary on the part of the nurses, and even occasional struggles probable, she *must* have sustained numerous fractures; and probably, at the *post mortem* examination, more than half her ribs and her sternum would have been found broken. As it was, there could not be the least suspicion that the fractures were due to violence of any kind; indeed, helpless as she was, requiring lifting, etc., the whole state of her rotten ribs bears witness to the great gentleness with which she must have been habitually handled.

In conclusion, I would venture one other remark. I think there is a tendency now-a-days in asylum treatment to trust too much to *manual* restraint on the part of the attendants; and also to allow acutely maniacal cases to be at large in a ward, where, if they are not roaming about, exposed to chance encounters with other patients, they are being "restrained" by two or more attendants holding them, certainly to the mutual detriment of tempers, not to speak of the risk to possibly diseased bones. Such cases, and especially if epileptics or general paralytics, are, in my humble opinion, treated on wiser principles, and are also much safer, in the quietness and security of a padded room; and this I state as my deliberate opinion, even at the risk of being styled "an advocate of seclusion", or of being thought behind the age in the matter of treatment.

ON THE PATHOLOGY OF URÆMIA AND THE SO-CALLED URÆMIC CONVULSIONS.*

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THE pathology of uræmic convulsions, by which I mean convulsions associated with albuminuria and disease of the kidneys, has always appeared to me obscure and unsatisfactory. Of course, it has long since been proved that it is not really an excess of urea alone in the blood which gives rise to them, for urea injected into the blood appears perfectly innocuous; they are, therefore, considered to be due to some other of the effete materials which are retained in excess in the blood owing to the failure of the kidneys to excrete them. But it still remained difficult to account for the production of epileptiform convulsions by the retention of this effete material. No good reason for their occurrence could be given until the theory propounded by Dr. Hughlings Jackson, that they were due to anæmia of the brain caused by spasm of the cerebral arteries, gave us what appeared to be a probable explanation, more or less consistent with known physiological facts. This view has lately been very ably and powerfully supported by Dr. George Johnson in his recent Lumeian lectures at the Royal College of Physicians, and I should be rash indeed did I venture to dispute the conclusions arrived at by such distinguished authorities. Every question, however, has two sides, and I shall endeavour in the present paper to look at another side of this question to that which has lately been brought before us, though without expressing a belief in either view, for I think it better to withhold judgment till further proof can be obtained.

It is needless for me to refer to the condition of high arterial tension which is so constantly found in acute and chronic Bright's disease, or to mention the changes taking place in the heart and arteries generally.

* Read before the Harveian Society of London.