on the fourth was lying dressed upon a sofa in the best of spirits. In the afternoon of that day, during the act of micturition, he felt an acute pain in the perinæum, and in walking from one room to another, fell on the passage so as to graze his forehead and the outer side of his knee; at the same time he had a violent rigor, followed by quick pulse and great pain in the injured parts. As the urine passed freely and entirely by the urethra, I expected that these symptoms would soon subside, but they continued, and went on to suppuration of the knee, with destruction of the eyeball, and terminated fatally at the end of several weeks. I felt quite unable to account for this case until the following one gave me additional light on the subject:—The patient suffered nothing from the operation, which was of the simplest kind, and as he did not complain at all of the catheter, was allowed to retain it three days. When it was then removed, he expressed perfect comfort, and afterwards wrote to his friends at home the most satisfactory accounts of his progress. At three o'clock of the afternoon he passed urine, and felt some pain in doing so, which was attended with a slight discharge of blood. Immediately afterwards he had a violent rigor, followed by delirium and insensibility. There was no pulse, no secretion of urine, and he died the next day. On examination there was not the slightest trace of urinary extravasation, or any other sign of local mischief; but the kidneys were gorged with blood to an extreme degree; and it was plain that death had resulted from a sudden shock to the nervous system.

In endeavouring to account for this effect, I recollected that the symptoms of disturbance were always connected with micturition after withdrawal of the catheter; and I also recollected that in all my practice, private as well as public, I had never, even in a single instance, encountered any bad effect of the kind in question, when there was a fistula in perineo. It, therefore, occurred to me, that the cause of disorder must proceed from the action of urine upon a raw surface produced by tearing of the imperfectly-united wound in the urethra. Under this impression, I thought that safety might be insured by preventing the wound from healing through frequently introducing the finger, so as to touch the catheter, and treated a number of cases on this principle with perfect success. But the tendency to union between the cut edges of the urethra is so strong that I sometimes found it necessary to use a little force in exposing the instrument; and upon two occasions of my doing so, the same deadly symptoms supervened that it was my object to prevent. I therefore resolved to obviate the danger more effectually by introducing a short catheter by the wound in the perinæum, and my principal object at present is to recommend this plan for your adoption. The instrument you see is about nine inches in length, slightly curved in opposite directions at its extremities, and having a couple of rings just behind the anterior bend for securing it in its place. In addition to the great advantage of affording perfect security, this catheter is much less irksome to the patient than the one hitherto in use, and cannot like it produce any bad effect by pressing upon the coats of a contracted bladder. It may be supposed that from not distending the urethra at the seat of stricture there may be inconvenience from contraction; and to obviate this, I used in some cases this flexible bougie, having a loop of thread at its extremity, which being protruded from the wound, allowed the catheter to slip through it, and so distend the canal. But this complication, I am inclined to think, is quite unnecessary, as the absence of it has not led to any practical inconvenience.

It has been frequently and very incorrectly said that I maintain the possibility of passing instruments at the first attempt in every case of stricture. I never did so, although it is true that during thirty years' practice I have never found it necessary, either in public or in private, to puncture the bladder on account of retention of urine from stricture; but in many cases I have required repeated and careful trials before being able to pass a bougie through the contracted part, my maxim always being, that if the urine gets out, an instrument through time, care, and patience may be got in. If, indeed, the canal has become obliterated by the effect of external injury, the state of things is different, and then the ordinary procedure is no longer applicable. I communicated to the Medical and Chirurgical Society of London a mode of overcoming this difficulty, which seems much more eligible than the old plan of cutting on the point of an instrument at the seat of obstruction. It was to pass a curved director, with its groove upon the concave side, through the fistulous opening into the bladder, which may always be very easily done, and then to push down upon it the instrument employed for guiding the incision in dividing strictures, so that the narrow

portion of it is forced through the obstructing texture exactly in the proper course of the urethra, and thus conducts the knife with certainty in the proper direction. I had lately an opportunity of learning that one of the two cases mentioned in that communication remains perfectly sound and well. The young man now before you affords another example of this plan proving successful. He came from Halifax, in Yorkshire, on account of a fistula in perineo, through which every drop of his urine had passed for five months, since the receipt of an injury by falling astride on a beam of wood. On examination, I found the urethra completely obstructed, and therefore performed the operation just described, with the effect, in six weeks' time, of restoring him to his present state of comfort. He now passes his urine in a full stream entirely by the urethra, and is going home with the prospect, I trust, of enjoying good health.

In connexion with this subject, I may notice a curious case that was lately sent to me by a gentleman now present, Dr. Roberts, of St. Asaph. The patient was a gentleman of about thirty-seven years of age, who had suffered long and severely from stricture, with fistula in perineo. In passing a small metallic bougie, I felt a hard substance behind the contraction, and, from my recollection of a similar case, at once recognised it as a piece of bone. Without delay, the stricture was divided, and these four small bodies removed. The largest has the size and form of a pea, the others being smaller and of an irregular figure. The largest one distinctly shows the osseous characters, but the smaller ones require a microscope for their detection. Urinary concretions are frequently met with behind a stricture, but exfoliations are hardly to be looked for in this situation, and can be accounted for on the present occasion only by the patient having in childhood suffered from disease of the pelvic bones.

Clinical Lectures

ON

INJURIES OF THE HEAD.

Delivered at St. Thomas's Hospital,

By SAMUEL SOLLY, Esq., F.R.S.,

SURGEON TO THE HOSPITAL.

LECTURE IV.

GENTLEMEN,—Two cases of injury to the head lately admitted into the hospital appear to me sufficiently interesting to be worthy of your serious attention. It enables me to continue in these lectures this interesting subject of injury to the brain from external violence to the skull. The first occurred a little while back, but I have not yet lectured upon it. I shall not detail it at length, but sketch it, I hope sufficiently clearly to be instructive.

Robert W—, a cabman, aged sixty, was pitched off his box on London-bridge. He struck the ground with the top of his head. I saw him fall. When picked up he was quite unconscious. He was in bed in the hospital within ten minutes after the occurrence of the accident, and within a quarter of an hour I found he had so far recovered from the concussion that he was able to tell his name and address.

There was some bleeding from the left ear, but no external laceration to account for it. I ordered him five grains of calomel every six hours; the head to be shaved, and a cold lotion applied. He continued in a stupid, lethargic state, but without actual coma, during the whole day, with a slow irregular pulse of no force or power. Towards evening he vomited, and his pulse became fuller. Ordered a common enema, and the cold lotion to be continued.

June 4th—the following morning—he was rather more conscious, and the pulse softer. He complains of pain at the top of the head, where there is a good deal of heat. Ordered ice in a bladder to be substituted for the lotion. The bleeding from the ear continues.

5th.—Head cooler, and on the whole better.

6th.—Bowels very freely opened. Calomel to be discontinued. His manner is very strange this morning; gives wandering answers when spoken to; no positive delirium, but just those slight indications which made me suspect the approach of delirium tremens—*delirium ebriosorum*. The head was now tolerably cool, and the pulse soft and moderately full. It was neither the wiry pulse indicative of inflammation, nor the full, oppressed, labouring pulse accompanying cerebral effusion.

7th.—The symptoms of delirium tremens are more marked; he is more restless, wanting to get out of bed, talking of his work, &c. Taking all his symptoms together, with his previous habits of life as a cabman, I ventured to treat the case as delirium tremens, as an anæmic, not an hyperæmic, condition of the brain, notwithstanding the possibility of there being a fracture of the base of the skull. I ordered him a drachm of laudanum immediately, and ten minims of the same, with half a drachm of sal volatile, in peppermint-water, every six hours. He had a better night.

8th.—The following morning, he answered all questions; recovering; the pulse continued quiet. I ordered the ice to be continued, as the head was still slightly above the temperature of the rest of the body. I ventured to give him a pint of porter.

This general plan of treatment answered, and was continued until he was discharged the hospital pretty well, though very deaf. I have seen him since, and he complains that his head is of no use to him, and that he cannot follow his occupation as a cabman. I have every reason to believe that there has been a fracture of a base of the skull in this case, notwithstanding the man's recovery as regards his bodily health.

The next case, from its fatal termination, enables us to connect the symptoms during life with the actual lesions of the brain as exhibited after death, which, while it is not so satisfactory to the surgeon, is often more instructive to the pupil.

Fracture of Base of Skull; Extravasation; Death.—James F—, aged fifty, foreman at a ship-chandler's, was admitted Sept. 23rd, 1857, into Abraham's ward. It appears that while engaged in minding a trap-door held up by chains at the back of the warehouse, one of the chains gave way, and he was precipitated a distance of about sixteen feet, striking his head, just before he reached the ground, against the side of a barge, and then falling in the mud. The nature of the accident is part of your evidence, and a very important part, in coming to a conclusion as to whether there is a fracture of the base of the skull—an injury which is always, I believe, occasioned by a direct blow on the vertex. He was picked up at once, and was sufficiently sensible to walk through the premises to a cab. The absence of immediate unconsciousness is no proof of the absence of fracture. By the time, however, he arrived at the hospital he was totally insensible. Blood was issuing, though not in any great quantity, from both ears; the pupils were contracted. The contracted pupils indicate an irritated brain, not a compressed one. The pulse was feeble and intermittent. This pulse is characteristic of severe injury of the brain, accompanied with slight hæmorrhage. Skin cold and moist, though this may have been partially due to the encasement of mud with which he was admitted.

Within a few minutes after he was in bed he had a strong epileptiform convulsive attack, but unaccompanied with any scream or foaming at the mouth, or turgescence of the vessels of the face and head. When I was informed of this epileptiform convulsion, I felt compelled to give a very unfavourable prognosis; for, taken with the rest of this history, it points almost with certainty to laceration of the brain, and if this man had recovered it would have been no proof that the brain was not torn. There are many cases on record of recovery where the brain has been so much torn that even large portions have been lost. I have detailed several of these cases in my work on this subject. You must, however, take care to distinguish between the epileptiform convulsion and true epilepsy, and you should always ascertain whether your patient has been subject to epileptic fits. Ordered five grains of calomel, and two grains every two hours; the head was shaved, and an ice-bag applied to the scalp; hot water to the feet.

He remained insensible throughout the day, breathing heavy, but not stertorous. In the evening he had another fit. A common enema was administered, which opened the bowels three times during the night.

Sept. 24th.—Has had no fit to-day, but is very restless; not so insensible but that he seems to hear any question addressed to him, although he gives no, or at least no intelligent, reply ;

once he appeared to recognise his master when he spoke to him by name; pupils contracted; pulse still feeble, but more rapid, 120; scalp very hot, making the surface of the body seem cool by contrast. Fifteen leeches to be applied to the scalp.

25th.—Has had two fits during the night; has been to-day so violent in the interim of the convulsions as to require restraint with the strait-jacket.

I am always sorry to hear that any patient of mine, under any circumstances, is put into a strait-jacket. They are the abominations of the old lunatic asylums, dismissed entirely from all well-conducted modern ones. In these establishments one or two judicious attendants supply the place of the mechanical restraint, but in an hospital we are not provided with such attendants, and, therefore, we are obliged to have recourse to the waistcoat, though even here we can often find convalescent patients who will attend to a fellow-sufferer with great kindness and judgment. The patient talks a good deal and incoherently, occasionally appears to doze for fifteen or twenty minutes; takes no food beyond a little milk, or arrowroot, or beef-tea; once, indeed, he appeared to relish a draught of cold water. Various rhonchi and large crepitation are common over the whole chest; gurgling also accompanies his breathing from accumulation of mucus, which he either has not the power or the sense to expectorate. He has appeared aware of his wife's presence, but holds no intelligible conversation with her; he rambles a good deal; bowels have been twice relieved.

26th.—He appears a little better this morning; quieter, a shade more rational; scalp less hot; strait-jacket taken off; the fits towards the afternoon become more frequent, but less violent, apparently for want of power; he is hemiplegic as regards the left side; the arm falls powerless when raised, and, all along, whenever he has attempted to get out of bed, it has been withdrawn, and towards his right side; when he mutters, the mouth is drawn to the right side; the right side of the body is the most strongly convulsed when in a fit. Bowels being irritated by the calomel, it was ordered every six hours. Motions passed involuntarily.

27th.—Has two or three times asked for some beef-tea, but with this exception has said nothing connectedly. Convulsions almost incessant; pulse feeble and fluttering; pupils contracted and insensible; loud rattling in his throat; all attempts at drinking seemed to choke him. Died about midnight.

Sectiocardaveris.—Heart: rather above natural size; there was a little deposit about the aortic valves, and some upon the lining membrane of the aorta. Lungs: both very much congested at their lower part; bronchial tubes red, and contained a quantity of muco-purulent fluid; right pleura somewhat adherent. Head: some effusion of blood beneath the scalp at the posterior part. Brain somewhat congested on the surface. At the outer and under part of the middle lobe of the right hemisphere was a laceration of its substance for an inch or more, in the immediate neighbourhood of which the brain substance was very soft; superficial to this laceration, but external to and beneath the dura mater, was a considerable effusion of blood, it was diffused, and did not form a hard clot. Just above the left lateral sinus, near the torcular Herophili, between the dura mater and the skull, was more blood also diffused. The left petrous process presented two or three small fissures, but no blood was extravasated in this part of the brain. The remainder of the brain was firm and healthy.

The next case, taken from my private practice, forcibly illustrates my assertion, that in fractures of the base of the skull the symptoms are not always so severe as to indicate so serious an injury. It is true that in this case we were unfortunately refused the only means we have of positively demonstrating to the eye the pathological condition of the brain—viz., a post-mortem examination. Nevertheless, there can be little doubt that the brain was injured by a fracture at the base.

On December 28th, 1857, I was sent for by telegraph from Dr. Boulger, of Bletchingley, to come down immediately to see a case of concussion. The patient was Mr. M—, aged twenty-four, single, a stout herculean man, a sportsman in habit, living well, but not intemperately, in first-rate condition. The accident occurred on the 26th, two days previously. He was in his dog-cart, his horse reared on starting, the reins broke, and he was pitched out backwards, falling on his head, on which the blow must have been very heavy from his great weight, which was about twenty stone. When Dr. Boulger first saw him he found him cold, senseless, and pallid. Blood of a bright red colour, but very small in quantity, was issuing from the left ear. No wound or abrasion of the head; the

pupils active. This is a very extraordinary fact, considering the serious injury. There was no reaction for two hours; after that he vomited, and became partly sensitive for a few seconds, then relapsing into unconsciousness, and snoring slightly. The next morning he took some tea. His pulse continued feeble and oppressed through the day. No serum had followed the bleeding from the ear, which stopped at the time of the accident, and was very slight, apparently arterial. The head becoming hot and slightly painful, ice was applied to the scalp. He has passed urine, arising for the purpose; very little power to assist himself, but no paralysis. A purge, containing five grains of calomel, was now given, followed by a black draught in four hours. The bowels were comfortably relieved, and he expressed himself as feeling better; less lethargic; more sensible; pulse 65, still laboured and weak; the pupils continuing active and alike. He took tea and arrowroot; more himself, but rather more restless; pulse about 70, but uneven and laboured. Observed that the right pupil was more dilated than the left, although it contracted slowly on the application of strong light. His tongue was moist and furred; there is occasional wandering and incoherence, on attempting to converse.

Dec. 28th, 1857.—When I first saw him, I found him lying in bed, very much flushed, his head very hot. Manner rather excited, apparently not knowing Dr. Boulger, and not answering him rationally. The right pupil of the eye rather more dilated than the left, and though it answered to the light of a candle, it did so much more sluggishly than the left; the tongue moist but furred; pulse very irregular, both in force and frequency, but on the whole full and slow—it was an oppressed pulse.

In reply to my question, "Does your head ache?" he said, "Yes, it does," and put his hand to the forehead. Dr. Boulger told me that he was much worse now than when he saw him in the morning, about six hours previously. He was then quite rational, though heavy. Under all the circumstances we determined to perform venesection, as leeches could not be applied in less than two hours, and then only twenty.

Dr. Boulger opened the median cephalic vein, and let blood *pleno rivo*, which we allowed to the extent of twenty ounces. This loss did not produce any faintness, but a very decided though only a temporary improvement. From this and the other facts of the case, I argue that there was a fracture of the base, with internal cranial hæmorrhage at the time of the injury, but that, in consequence of the effusion taking place at the base of the brain, the old reputed symptoms for diagnosing compression were absent. The practical points to be derived are the same as those from the other cases—namely, the apparent *slightness* of the symptoms in the first instances, so much so that the friends of the poor fellow would not believe that he was seriously injured, and were inclined to believe that Dr. B. was making too much of the case. Like one of the patients I have been speaking about, he would get out for every motion of his bowels. Indeed, his enormous weight rendered it almost impossible for his attendant to place the bed-pan under him, unless he had been placed on one of those beds which are made purposely for lifting heavy weights. Of these contrivances, I have seen none equal to one invented by my friend and brother-in-law, Mr. Denne, Medical Superintendent at the Bedford Asylum, and patented by Mr. Hooper, Pall Mall. This bed, I think, will prove of great value to the profession. An account of it, with a wood-cut, may be seen in Mr. Denne's Report of the Asylum.

But to return to our patient. On the following day, Dr. Boulger shaved the head, applied twenty leeches, gave three grains of calomel every three hours with the antimonial wine, and applied ice to the head.

29th.—Symptoms better; the pupils more alike; the expression more natural; less restlessness; pulse 80, but more even and regular. Arrowroot and beef-tea taken at intervals. Mercury beginning to affect the mouth. Head still hot. In the evening, twenty more leeches were applied to the scalp.

30th.—System decidedly affected by the mercury; the pulse 80, and the head much cooler, but great restlessness and prostration.

31st.—Much the same, but more restless. From this date he gradually sunk. Squinting took place, but there was no other feature of note. He died comatose on the 7th day from the receipt of the injury. The antiphlogistic measures which were adopted appeared to arrest for a short time the rapid progress of inflammatory action, but the injury was too severe to admit of cure, and the case adds another to the list of fatal injury with comparatively slight signs of cerebral mischief for the first forty-eight hours.

Nettsonian Lectures,

DELIVERED BEFORE

THE MEDICAL SOCIETY OF LONDON,

March the 17th, 1858.

BY VICTOR DE MÉRIC, Esq.,

SURGEON TO THE ROYAL FREE HOSPITAL, AND TO
THE GERMAN HOSPITAL, DALSTON.

LECTURE I.

ON THE UNICITY OR DUALITY OF THE VIRUS IN SYPHILIS.

Importance of the study of syphilis.—Specialism.—Diversity of opinions on syphilis.—The origin of the disease.—Syphilis in modern times.—Existence of a syphilitic virus.—Ricord's unicity.—Proposed duality.—Sketches of the doctrines of Hunter, Abernethy, Carmichael, and Wallace, as bearing on the plurality of the virus.—Bassereau's duality.—Ricord's opinion on a duality of poisons.—Present state of the question.

MR. PRESIDENT AND GENTLEMEN,—I beg your permission to offer a few observations on some points of interest bearing upon the pathology and treatment of the syphilitic disease; and as considerations respecting this malady have not yet been brought forward from this chair, I shall have the advantage of novelty as regards the subject.

It will hardly seem strange that a conference on surgery should hinge upon the syphilitic disease; for surgeons now-a-days, when coping with syphilis, are called upon to do a little more than to promote the healing of sores, and to gouge away carious bone. They are, on the contrary, expected to study the essence of the malady, trace it from its origin, examine its mode of propagation, its varied forms and aspects; observe its progress and the influence of remedies upon its manifestations, distinguish it from other diseases, watch over relapses, and devise the most efficacious and least dangerous therapeutical measures.

To do all this, it is indispensable that the inquirer be a surgeon in the fullest acceptation of the word; for the only way of mastering any surgical disease is to descend from the general knowledge of all medical and surgical affections to the particular malady to which especial attention is bestowed. General principles, and the close study of pathological laws, will allow the observer to move with judgment and ease in the circle which he has traced for himself; and he is then ever ready to apply his information and manual skill to improvements and sound practice in the particular branch to which he is confining himself. Such a surgeon need not be afraid of being considered a *specialist*, particularly if he succeed in avoiding some of the quicksands of specialism. Amongst these is the propensity of clothing many unkindred affections in the special garb; and of not paying sufficient respect to the opinion of men who, laying no pretension to specialism, are nevertheless entitled by their knowledge and experience to judge for themselves.

I suspect that we all may usefully bestow a portion of our time to the study of syphilis. Amongst the reasons for holding this opinion I may give the two following: the universal manner in which the disease is spread amongst the community, and the variety of methods employed by competent practitioners in combating the malady.

Before the audience I have the honour of addressing, it would be superfluous to dwell on the disastrous influence this fell disease has exercised upon mankind for the last three centuries; how it has poisoned the very springs of life, fearfully visiting both the innocent and the guilty; how aggravated and loathsome it was rendered by illiberal measures and imperfect treatment; how rapidly it destroys some individuals; how obstinately it fastens for a considerable number of years upon others; and how terribly, even in modern times, it has been known to break out and defy all control.

All these unfortunate circumstances are well known; nor are my hearers less aware of the diversities of methods employed in the treatment of the disease, all these methods being based upon deep conviction and candidly avowed theoretica