

she had worn the applications without inconvenience, but wished to have the substance removed, if possible. Accordingly, on the 3rd, Mr. Carden, with the view of getting the body into the cellular tissue surrounding the joint, previously to its complete removal, made a subcutaneous division of the synovial membrane on the upper and outer side of the joint, the body being firmly pressed in the same direction; instead, however, of its starting from the joint, and lying in the cellular tissue outside, it appeared to be retained by some adhesion in its present position; and as it did not afford to the knife the sensation of cartilage, Mr. Carden withdrew the tenotomy knife he was using, and made an incision with a scalpel directly down to the substance; the opening into the joint was an inch or rather more in length, and in this way a body somewhat resembling in appearance the thyroid gland was brought into view and drawn out, great care being taken to prevent the admission of air into the joint; a narrow pedicle, three or four lines in length, found attached to the interior of the joint opposite the external lateral ligament had limited its mobility. The tumour appearing rather vascular, it was thought desirable to surround the pedicle with a ligature before dividing it, so as to prevent risk of hæmorrhage into the joint. The tumour was then removed, two or three drachms of synovia escaped, and the wound was brought accurately into apposition by plasters, the ligature hanging out; a roller was put on from the toes above the knee, and a cold lotion kept constantly to the part. The growth, lobulated and glistening on the surface, was of the shape of a kidney, the pedicle corresponding in position to the ureter; it was two inches and a quarter in length by one inch and a quarter in breadth, and about three-quarters of an inch thick; its general consistence, that of the thyroid gland, and in no part so dense as cartilage, of a reddish colour externally, paler within. Under the microscope it presented the aspect of very delicate transparent fibrous tissue, with minute cells, smaller than blood-cells, lying intermixed; in no degree resembling cartilage, but rather fine delicate areolar tissue.

In the evening she was restless. Pulse 100; tongue dry; considerable thirst; complained of nausea and faintness; some heat of the knee, but no pain.

Sumat liq. opii sed. ℥xxv.

Aug. 4th. Pulse 90; knee cooler; less thirst; she feels more comfortable; and the bowels have been moved during the night. She got no sleep.

Vespere. Continues easy; pulse 88, soft. No uneasiness in the joint; feels she shall not sleep.

Sumat liq. opii sed. ℥xxx.

Aug. 5th. Quite easy; slept well.

Aug. 6th. At 12 last night had a rigor, which lasted about ten minutes, and subsequently vomited. Pulse 112; no pain in the knee; ordered effervescing salines every four hours.

Aug. 7th. Dressings removed from knee; wound united; no inflammatory action apparent; the joint is smaller than before the operation. Pulse 90; slight shiverings.

Aug. 9th. The ligature came away to-day; light dressings were kept applied to the knee for a few days; and on the 19th, she was discharged cured, being directed to wear an elastic knee-cap for a short period.

a fatal termination, serous effusion within the head, caused by chronic change in the membranes of the brain, acute mania, and mental imbecility. Consequences of this kind, as is well known, occasionally develop themselves after suspicions of ulterior injury have been allayed, and at times, probably, when perseverance for a longer period in precautionary discipline might have prevented such serious results. With a view of recalling, or of fixing, the attention of practitioners to these considerations, I offer for your acceptance some particulars of a few cases which I take from my note-book.

About three years ago, my attendance was summoned to the case of a gentleman who, in a railway collision, "had been greatly shaken;" there was no bruise, no fracture, no dislocation; he complained mostly of stiffness in the back. With rest, and very simple treatment, he seemed to be recovering from all effects of the accident, when suddenly, at the expiration of ten days, he was seized with hemiplegia, coincidentally with symptoms of cerebral congestion; these latter were soon completely relieved, and the former were considerably mitigated in a few weeks; but at the end of six months, when I lost sight of the patient, there was every reason to conclude that paralytic debility of the affected side would, to some extent, be permanent. There can be no reasonable doubt that, in this case, the resultant hemiplegia arose from the shock sustained in the railway carriage.

Some time ago, Mr. A. B. was thrown from his horse; besides experiencing general concussion, he sprained his ankle somewhat severely; this latter circumstance alone engaged the attention of the attendant practitioner, the patient, and the friends. All practical inconvenience from the sprain was soon at an end; but the gentleman, in three or four weeks, became nervous and excitable; excessive and unwonted irritability soon ensued; but these phenomena were neither connected with the previous accident nor regarded as morbid. He was engaged to be married, and impatiently hurried on the ratification of the engagement. He was married, and every symptom became seriously aggravated. Furious and ridiculous jealousies were displayed, vehement and thoroughly unnatural outbursts of temper were exhibited towards his bride, and shortly after the honeymoon he was "quite beside himself." The malady was recognised as "excessive nervousness", and he was sent to a hydropathic establishment, from which, in about ten days, he was brought home a raving maniac, about ten months after the fall from his horse. At this period he became very patient. He has been under my care for about five months, and at this time has greatly improved. His treatment has consisted negatively in the withdrawal of both physical and moral excitement, and positively in regulation of the stomach and bowels, the warm bath, and occasional counter-irritation to the nape of the neck, and moderate doses of the iodide of potassium. I cannot doubt that, in this case, cerebro-spinal concussion initiated all the subsequent mischief, which might probably in great measure have been obviated, if due regard had been had to this circumstance in the early management of the patient.

In my work on *Psychological Medicine*, I have recorded the case of a youth, nineteen years of age, who, after a leap, felt simply a slight stiffness of the back, which passed off in a few days. At the expiration of a fortnight, this youth became restless, excitable, and eccentric in his conduct, and was unable to sleep. After two or three days' continuance of these symptoms, delirium supervened, with heat of scalp and flushed face; but there was no great elevation of the pulse. Under ordinary treatment, the acute symptoms were subdued in three or four days; the appetite for food and the strength returned; periodic and refreshing sleep also; and the patient was able to take exercise in the open air. But he was left a rambling maniac, babbling all sorts of nonsense in the most incoherent manner, and exhibiting grimace and other absurdities of demeanour. He was for three months under my care, and completely recovered; he has ever since—a period of three

ORIGINAL COMMUNICATIONS.

CEREBRO-SPINAL CONCUSSION.

By DANIEL NOBLE, M.D., Manchester.

THE mischievous consequences of cerebro-spinal concussion are familiar facts. The proximate result of this accident cannot very well escape the practitioner's observation; but I have reason to think, that attention is not always duly fixed upon the more remote effects that are liable to ensue, such as hemiplegia, cerebral softening, and abscess, having

years—been totally free from every indication either of cerebral or spinal mischief. I must regard the etiology of this case as identical with that of the one preceding.

I am indebted for notes of the following case to my friend Mr. Walsh, of this city, who attended the patient previous to his death; I was, myself, only present at the *post mortem* examination. I. K., a healthy and muscular labourer, aged 27 years, received a blow upon the head from a policeman's bludgeon, whereupon he staggered and fell, in a state of insensibility. In this condition he was taken to the police station, and subsequently to the Manchester Infirmary, when, soon after his admission, consciousness slowly returned. At the expiration of seven weeks, he was discharged, apparently quite cured. He was cautioned, however, by the surgeon that, if he took drink, most likely he would some day go off his mind. This caution affected him but little, for he did drink occasionally, and it was observed that a very small quantity of alcoholic liquor—such as formerly would have had little or no effect upon him—now caused great excitement, which, however, passed away when he became sober. In other respects, nothing particular was observable. At the beginning of August of the present year—two years and a half from receipt of the injury—he was suddenly seized, without any obvious cause, with pain in the left ear, which, after a short time, extended to the side of the head, and resembled the pain he had experienced when in the Infirmary after the blow. During a period of nine weeks, he endured the most exquisite torments, until they were terminated by approaching death. When Mr. Walsh's attendance upon him commenced, there was not a single objective symptom discoverable, nothing but constant and intense pain, sometimes in the ears, then upon one side of the head, then over one eyebrow, then it would distribute itself over the whole head, and, finally, settle itself in one place—a little above the level of the left ear, which part, indeed, was never free from pain, more or less. He frequently expressed a conviction that, within this region, there was a gathering, and even asked to have it opened. A few days before his death, appetite left him, the pulse became quickened, and the tongue was dry and brown. Forty-eight hours prior to his death, he slept—the first time for some weeks. The sleep was quite tranquil, without any stertor; he was easily aroused, and drank when fluid was offered to him, and he left the bed when he had occasion to pass urine; but no sooner had he laid down again, than he was fast asleep. He finally died, as if from exhaustion, having been out of bed a few minutes previously. On examining the head after death, the scalp was quite bloodless. On raising the calvarium, a considerable quantity of pus was forcibly ejected from the region corresponding with the previously fixed pain over the left ear. On closer examination, it was found to have escaped from the left middle lobe of the cerebrium, through a ragged opening in the dura mater; and, on further examination, it was discovered to have formed the contents of a cyst nearly as large as a hen's egg—a cyst which floated, as it were, in a considerable portion of the cerebral substance, in a state of *yellow softening*. The parts at the base of the encephalon, and the whole of the right hemisphere, were normal. The pathology of this case is too obvious to require comment.

I will supply yet one other case, in pursuance of the design with which I set out.

Mr. R., aged 53, sustained, about three years before his last illness, a severe cerebral concussion, in consequence of a fall on the back of his head. He was for a short time insensible, but recovered from all marked symptoms in two or three weeks. Afterwards, however, he would occasionally complain of headache, becoming more irritable also, and absolutely intolerant of alcoholic drinks. Thus he went on until Friday, the 30th ult., when he had a slight pleuritic attack, apparently brought on by cold: this, by very simple treatment, was immediately relieved. He was out of bed on the following day, also on the Sunday and Monday; but there seemed no genuine convalescence establishing itself. He was low and anxious about himself,

and the appetite did not return. He passed a bad night between the Monday and Tuesday, complaining of pain in the right side (the pleuritic attack before mentioned having been in the left); his respiration became embarrassed, and cough was troublesome. Dr. Aikenhead, his medical attendant, found him very ill on the Tuesday morning, and suggested that I should be called in consultation; in the meanwhile removing a little blood by leeches from the affected side, and administering suitable medicines. I saw the patient in the afternoon of the same day, about half-past four, when he exhibited great prostration, with all the signs, constitutional and physical, of pleuropneumonia. There was a certain drowsiness and listlessness of manner that might have excited the suspicion of encephalic mischief, but that he had had no sleep the previous night, had for many hours been greatly embarrassed in his breathing, and had taken, with blue pill, a small dose of opium. We proposed to bring him rapidly under the influence of mercury, and took our leave; but, in less than two hours, Dr. Aikenhead was recalled, and found him paralysed on the right side both as to motion and sensation, and fast lapsing into unconsciousness. I also was now recalled, and arrived at the patient's house soon after seven. His condition at this time was quite apoplectic, and he died in less than two hours.

A *post mortem* inspection took place the day but one succeeding his death. The thoracic cavity displayed all the appearances anticipated from the symptoms during life. On removing the skull-cap, considerable adhesion was found to exist between some parts of the cranium and the dura mater; the arachnoid membrane was slightly thickened, and exhibited throughout its structure a sort of ashy degeneracy, but hardly of a character to suggest the notion of inflammation; there was fluid in the lateral ventricles, and this was in very considerable quantity at the base of the skull. The substance of the brain and of the cerebellum furnished no abnormal indications. I think it probable in the highest degree that the cerebral concussion sustained three years previously initiated chronic meningitis; and that the thoracic affection which quickened the circulation and embarrassed the respiration, reacting upon the encephalon, was the immediate excitant of the serous effusion from the morbid membranes; such effusion being to be regarded as the immediate cause of death.

In practical commentary on the foregoing facts, I conclude with the following case. A few days ago, I was consulted by a gentleman, 25 years of age, who, about a fortnight previously had fallen down stairs by slipping on his back. Notwithstanding that he felt considerable pain over and a little above the sacral region, he took no notice of the accident at the time. On the contrary, he took a pleasure tour into Wales, and indulged largely in horse exercise. Returning home a few days prior to his consulting me, he recognised the necessity of seeking advice, as no indications showed themselves of the local pain disappearing. After he had stated his case, I asked him if he had any headache or other sign of disturbance about the brain, in answer to which inquiry he observed that, for two or three nights, he had slept badly—the previous night not more than half an hour—and that he had experienced considerable throbbing in the head when fruitlessly attempting to sleep. Hereupon, I made an explanation of the necessity of strict treatment and due precaution, and ordered him to bed, prescribing leeches to the original seat of injury, mild aperients, and reduced diet. In two days he was quite relieved in the back, and he had slept a little better, still complaining, however, of some throbbing in the head. I prescribed, in consequence, two leeches behind each ear, the relief from which was immediate. The night but one after this topical blood-letting, he slept almost continuously for seven hours. This is two days ago; he is now free from all symptoms. I shall think it right, upon taking leave of him, to enjoin the most rigorous care for many months, urging that horse exercise, dancing, late hours, alcoholic stimulants, and other cerebral excitants, be carefully avoided.