

## THE STORY OF A SPINAL INJURY.

BY A PATIENT, A SOLICITOR, AGED 30.

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IN cases of spinal injuries it is unusual for the patient's symptoms to be accurately recorded. The following account was written by a solicitor, who on three separate occasions suffered from signs and symptoms of spinal injury. For this reason, and on account of the rarity of the case, it would seem that these notes are of sufficient interest to justify publication:—

“On July 21, 1916, while riding my charger at full gallop she put her foot in a rabbit-hole and pecked badly, throwing me violently on the ground at right angles to the direction in which I was travelling.

“I distinctly remember the impact with the ground. I had fallen stretched out at full length on my back, having struck the ground at a point just below my neck, with my head instinctively bent forward to protect it from injury. I at once had a feeling of constriction round the upper half of my chest, and began to gasp for breath, but was unable to take deep breaths on account of the constriction, which gave me a feeling of being tightly bound down. The gasping continued for some time, and for some days later I was unable to fill my lungs completely, and coughing or laughing caused great pain. My next sensation was one of very intense pain in the neighbourhood of the collar-bone, extending as far as the points of the shoulders and round the back immediately below the neck.

“In all the rest of the body below the collar-bone I had no feeling at all, neither had I any notion in what position my limbs were, and I could not raise my head to see, but I had an idea that my arms were raised unsupported in the air from my shoulders. I was told that they were on the ground by my side, and I asked that they might be laid across my chest as I thought that this might relieve the intense pain in my shoulders, and also feared that they might be broken. This was done, but I could not feel them being moved in the slightest. I then tried to move my feet, but was informed that there was no movement discernible.

“Meanwhile some one was chafing my hands, and after about ten minutes (?) I could just feel it when the back of my right (?) hand was pinched, and soon afterwards I was told that my right foot was moving very slightly.

“There was never any loss of consciousness, and as soon as my breathing was under control, I was able to speak rationally. I found that my sight was not affected, and that I could protrude my tongue in a straight line. I remarked jokingly that I had probably broken my neck! I was told my head was bleeding, but I believe this was not a fact.

## “IN HOLT MILITARY HOSPITAL.

“I was taken in an ambulance to Holt Military Hospital, where I was laid on a stretcher, and after my boots and leggings had been removed (I could feel this being done) I remained thus for four or five hours, after being given morphia tablets, when I was given an anæsthetic, after which my clothes were removed, and I was examined and a catheter passed. It had been suspected that both of

my shoulders were 'out,' and the pain in the points of my shoulder joints was so severe that I thought it might be so.

"I recovered from the anæsthetic about 5 p.m., and felt slightly sick, but did not vomit, although I was told that I had done so previously. By this time I could feel my hands and feet being touched, although the sensation was very much diminished, particularly on left side, and feeling of constriction round chest was still bad, and there was intense hyperæsthesia of the skin immediately below the collar-bone, which was so bad that I could not bear the friction of my pyjamas; it felt as though a fine mesh of red-hot wires were laid across my shoulders and thorax.

"During the night (21st to 22nd) I was able very slowly to flex my right knee, and to move my right toes slightly. I had frequently to ask that the position of my arms might be changed. I found then and later that the most comfortable position was for my arms to be laid across my chest with the elbows well away from the body.

"CONDITION SEVENTEEN HOURS AFTER ACCIDENT.

"Right knee could be flexed slowly. Movement of right foot and toes. Very slight movement in fingers of right hand. Left knee could be flexed with difficulty. No movement of left foot or toes, fingers or arms. Sensation to touch had everywhere returned, and was numb and 'woolley.' Able to distinguish heat from cold. Sensation above collar-bone line quite normal. Urine retained. Bowels unopened. Knee-jerks exaggerated. Ankle clonus. Bruising on left side of right wrist and forearm, and lower joint of left thumb. Head could be moved from side to side.

"NORFOLK WAR HOSPITAL, JULY 22.

"In about two days' time I could easily flex both knees, move right toes, and fingers fairly well, and left toes slightly. I was unable to move my left fingers at all for about a week. Retention of urine occurred for four or five days, during which time a catheter was passed twice and rarely three times daily. No pus or albumin was detected in urine. After power of voiding urine normally returned, I had slight symptoms (spasmodic muscular contraction and urgent frequent 'calls') of cystitis, and this remained for some weeks, but was relieved by urotropine. Bowels were moved by enema (with difficulty) on the sixth day, and twice more in the next twelve days, once by enema and once after two grains of calomel.

"For the next five or six days temperature was over 102° F., and at times nearly 103° F., after which it dropped to under 100° F., but my night temperature continued at about 99·6° F. to 99·4° F. for some weeks. I was able to take nourishment fairly well although without appetite, and except for the pain (which was agonizing in shoulders and across the upper part of the back when I was moved or touched), I never felt seriously ill, excepting the first day I had an enema, when I was very sick, and had much flatulence, and felt collapsed. I only had one headache the whole of the time I was in hospital, and that was in October.

"Sleeping draughts or injections were given to me nightly for about the first ten days, but even with this I rarely slept for more than an hour or two owing to the pain.

"After about fourteen days from accident, condition as follows:—

"Sleeping much better, but not until about midnight or later. Urine now passed normally. Bowels *very* obstinate. Right leg getting much stronger. Able to hold light articles, papers, etc., in fingers of right hand. Able to raise right forearms from elbow, but only slight movement of upper arm from shoulder. Just able to get right hand up to mouth after great struggle. Left leg stronger. Frequent cramp from thigh downwards when extending left knee after it had been flexed for some time. Now able to close fingers of left hand, and to extend them again with even greater difficulty (I found that if the fingers of my left hand were closed and my left leg straight, my fingers *opened involuntarily* when I flexed my left knee!) Left forearm could now, or soon afterwards, be drawn downwards with difficulty when laid across my chest, but I could not draw it upwards towards my head or raise it at all. When I yawned I was prone to cramp in my left arm, and my fingers would stretch wide open involuntarily.

"By about the end of August I could touch the top of my head with my right hand and write a little, although fingers still stiff and numbed. I had previously experienced difficulty in turning my right wrist outwards, but this was now improving.

"The left side was still very weak, especially finger extensors. Could *just* touch my face with my left hand. Unable to turn left wrist outwards, and the wrist was very much dropped.

"Since movement began to return my hands had been first of all hot and dry, and subsequently very cold (I noticed this first in the right hand, and not until later in the left); and the skin on the palms always felt very dry, with a feeling that the skin was much too tight for the hand, rubbing them with oil or glycerine, or soaking them in water relieved this for a short time. The left leg from this time onwards was very subject to tremors. The soles of both feet had a definite band of partial insensibility, running horizontally across the centre just below the toes; this continued for some time. About this time I first noticed that the tendon of my left big toe was contracted, causing the toe to turn up. It never got stiff, and this condition lasted until I was able to wear boots.

"On August 12, I was moved in a prone position to a bed on the lawn in the daytime, and from the middle of the month I was sleeping and eating well, colour better and putting on flesh. I noticed one day, and subsequently when it began to rain, when I was out, that the raindrops falling on the back of my hand (right) seemed to feel hot instead of cold; I did not notice this in the case of my left hand.

"Between the fifth and sixth week I was able to sit up in bed with help, and my back supported, and I could now perform the necessary offices for myself with little or no help. The pain was now much less.

"About first week in September I was able to get into a wheeled chair with help, and very soon to cut up my own food. Could stand on right leg without support almost at once, but not on left leg for some days. Tremors in left leg and knee now very bad and uncontrollable.

"On September 12, I was able to "walk" for the first time, supported on both sides. Left foot dragged very much when walking, and very prone to turn outwards and toes to turn in. I first began to notice about this time that the sensory feeling of my *right side* was now very much worse than that of my left

(although the reverse was the case as regards powers of movement). When touching the bare skin of my right thigh and calf and buttock in particular, the feeling was diminished as though I had a sheet over the bare skin, whilst the feeling of my left side (excepting in my fingers which had 'pins and needles') was almost normal.

"The drop-wrist condition of my left arm was now cured, but I still had difficulty in turning my wrist outwards. Left thumb now very painful and stiff and X-ray examination revealed that one of the metacarpal bones was cracked. Bowels were still most obstinate and only moved by taking aperients in large quantities, the cause being, I am convinced, lack of power to expel the motion by straining.

"About this time I frequently had pain (rheumatism or nerves) along the outside of my left thigh; this was usually worse when I was warm and in bed.

"Second week in October. I could now walk up and downstairs one step at a time with the right foot leading, but was unable to lead with the left foot, owing to a stiffness in ankle joint, and weakness in left knee. The tendo Achillis of left foot used to get very sore after walking. Tremors in left leg less frequent now, but still persist. I found myself at this period very 'jumpy' and easily startled.

"Right leg now very sensitive to pressure, particularly the knee; thus if I pressed my right knee against a table leg sharp pains shooting up the inside of my leg, starting from the point of contact, were experienced. I never noticed this in the case of the left leg.

"Sensation of right limbs still bad, particularly the ulna side of the right hand, this part frequently 'going to sleep' while the rest of the hand is normal.

"Movement of left arm now much better, but I still could not raise left arm above my head and could only turn the left wrist over with difficulty.

"The pain in my shoulders had now concentrated in a point just below the clavicle of each shoulder, and was more in the nature of a deep-seated painful itching; this was always worse in the early morning, on awaking.

"I was discharged from hospital on October 14.

"My weight was now ten stone, exactly fourteen pounds below my normal.

#### PRESENT CONDITION (JANUARY, 1916).

"I have just been before a medical board, which has given me a further month's sick leave.

"An eminent neurologist, whom I consulted just before Christmas, says that I am making very satisfactory progress, and that I shall be *absolutely fit* in the course of a few months, but that I shall not be fit for duty for 'at least three months.'

"Knee jerks still exaggerated. Inclined to drag left foot a little still when walking, but can walk two miles in my own time. Limbs on right side perfectly strong, but sensation still diminished, particularly in thigh, buttock, and top of right foot, which feels 'woolley.'

"Grip of right hand very strong. Ulnar side of right hand frequently numbed. Fingers of both hands still tingle, particularly when I am tired. I cannot wear wool next my skin, it sets my teeth on 'edge.'

"Left arm still a little stiff at the shoulder, and unable to lift anything heavy.

Sensation to touch on left side normal except in fingers (here again the ulna side is the worst). Extensors of fingers of left hand still bad. Broken thumb still very painful when moved and muscles much contracted. Left ankle stiffer than normal. Movement of head not so free as before accident. Bowels still troublesome, and pills or medicine have to be taken regularly, this due to inability to strain. Pain just below clavicle in both shoulders occasionally, especially on awaking. Tremor in left leg very rare now, and chiefly occurs on awaking. I occasionally get queer sensations of pricking, burning, etc., which make me jump violently.

#### PARTICULARS OF PREVIOUS ACCIDENT IN 1908.

"I had a very similar (but much less severe) accident in 1908, caused by a fall with my horse when hunting. I was then pitched over my horse's head on to my back, and lay on the ground for about ten minutes, feeling numbed all over, and unable to move hand or foot. I do not think that sensory feeling was ever lost on that occasion, but it was six weeks about before I recovered full use of my left arm, although my right arm recovered more quickly. I experienced very intense pain just below my collar-bone back and front, as well as in my shoulders, and it was many months before I quite got rid of it.

"There were no bones broken, and a local practitioner diagnosed 'bruised nerves,' it never being suspected that my spine might be injured.

"I had also had a similar accident about a year previous to this when playing Rugby football at Oxford, but although movement of left limb was affected and I had girdle pain for about a week, there was no paralysis."

#### REMARKS.

This case was admitted to the Officers' Ward at the Norfolk War Hospital on July 22, 1916. The medical man who first attended the case suspected that it might be one of traumatic neurasthenia. In other words that the signs and symptoms complained of were functional. The account of the case and its progress seem to be worthy of record. Firstly, because it is written by the patient, and secondly, because of the difficulty in arriving at a diagnosis.

In conditions of traumatic neuroses three types of cases may be recognized, namely: (1) Cases of simple traumatic neurasthenia; (2) cases with marked hysterical features; (3) cases in which the symptoms and signs suggest an organic lesion.

It is difficult to imagine that a large functional element did not play an important part in the production of the signs and symptoms in the above case, but that there may have also been some organic lesion of the cord, I think cannot be excluded, owing to the presence and persistence of a well-marked extensor response (Babinski signs).