OBSERVATIONS ON SHELL SHOCK AND NEURASTHENIA IN THE HOSPITALS IN THE WESTERN COMMAND.

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SINCE December, 1916, I have been actively engaged, *inter alia*, as inspector of shell shock and neurasthenic patients in the general, sectional, auxiliary, military, Red Cross, and V.A.D. hospitals of the Western Command. The extent of this command may be judged from the fact that it reaches from Gretna Green to Milford Haven, and embraces the Isle of Man, Cumberland, Westmorland, Lancashire, Cheshire, Shropshire, Herefordshire, Monmouthshire, and all Wales. Having examined and taken notes of more than 800 cases of shell shock and neurasthenia in these hospitals, it has occurred to me that my observations thereon might be of interest and of some slight value in the treatment of these diseases.

The symptoms of shell shock have been fully analysed and described by many neurologists, and the painful picture of the acute sufferer drawn by able hands; but while great stress has been laid upon the disorders of the cerebro-spinal system, hardly enough attention seems to have been given to the altered functions of the sympathetic ganglia and nerves. I have been impressed by the large number of these patients with hysterical or pithiatic symptoms. When brought before me several—mostly young men between 19 and 25 years of age—have exhibited intense suffusion of the face, free perspiration, widely dilated pupils, rapid heart's action with weak pulse and cold clammy extremities, terminating in a hystero-epileptic seizure with marked clonic spasms of comparatively short duration. The fine tremors have continued after the clonic spasms have passed off. I have met with several cases of hyperthyroidism with slight enlargement of the thyroid gland, one of which exhibited nearly all the symptoms of Graves's disease—palpitation, enlargement of thyroid, shortness of breath, anaemia, and protrusion of eyeballs. In one or two cases I have suspected hyperadrenalism from excessive functional activity of the suprarenal bodies under emotion. In these there has been slight cardiac hypertrophy, with rapid pulse and hysterical symptoms.

It is unnecessary for me to describe the coarse and fine tremors of shell shock patients. They may affect the arms and hands, legs, neck, and body generally, but I have seldom observed fine tremor of the tongue in a purely functional case. If this symptom exists it is generally found in the man who has reached or passed maturity and who has been addicted to the abuse of alcohol or excessive smoking. In testing patients for fine tremors I make them face me and extend the arms, one at a time, at right angles to the body and square with it, with the hands vertical and the fingers spread open, the head being turned to the opposite shoulder. Fine tremors are always more marked in the hand which is most used. The coarse tremors are often simulated by the malingerer or skrimshanker; the fine they cannot affect.

I examined a man recently who was called up as a recruit in January last, and who three weeks later, after inoculation, exhibited continuous coarse tremors of the upper extremities until three weeks ago. He had never been exposed to shell shock, or shock of any kind. It appeared to be solely a case of "funk" at "having to do his bit." He had no fine tremors of the hands or exaggerated reflexes. I recommended daily faradism, varied by galvanism if necessary, to the upper extremities. He has steadily improved, and a week ago absented himself from the hospital without leave, to be brought back a day later.

I have seen quite a number with all the tremors of shell shock who have never been near the fighting line, and many who have never been out of the country. Their symptoms have arisen from fright, worry, and nerve tension self-induced. Several of these men were old alcoholics of about 40 years of age who had been called up.

The symptoms of shell shock in wounded soldiers are often latent for a period after the wound is sustained. Hence the man arrives at the base labelled wounded only, and as such is sent to the general hospital on this side. Owing to the pressure on the home general

hospitals after a "push" many patients are quickly passed on to the sectional and auxiliary hospitals, and it is in these the shell shock symptoms are first manifest. The wound heals, but the shell shock symptoms remain. To ensure that such cases are properly treated we early last year gave instructions in the Western Command that these men should be removed as speedily as possible to the special neurasthenic hospital at Maghull. This has necessitated a considerable extension of that hospital, and the equipment of a second neurasthenic hospital in the southern portion of the command is to be undertaken at an early date.

The cases of hysterical or pithiatic paralysis, the hemiplegias, paraplegias, monoplegias, contractures, and men with halting gait and limps have been sent to the special neurasthenic hospital, Maghull, or to the special sectional nerve hospitals for treatment. I have not noted any tics, and I think they are comparatively rare in shell shock cases. The cephalalgias are mostly frontal and intertemporal, occasionally occipital in the hystero-epileptic cases, never vertical. The pain is worse in the morning and increased by excitement or brain fog. Pains in the lower limbs are more usual than in the upper, and pains in the viscera and spine are not uncommon. A few of my cases have been deaf-mute or mute, a good number have spoken only in whispers, and many stammered or had blurred and hesitating speech. I have not had any patients blind through shock, although some had lost their sight but regained it before they came under my notice. A number suffered from periodic vomiting, and two or three had glycosuria.

The mental symptoms noted have occurred in the following order of frequency: Confusional, melancholic, delusional, stuporose, and maniacal. I have been struck by the relatively few cases of mania to melancholia which have occurred in this war. General paralysis of the insane also has been rarer than I expected. In many patients the memory is impaired for recent events and day to day actions and happenings, and there is a blank in regard to the incidents of their shell shock period. Memory for recent events of daily life, however, improves as the case progresses to recovery. I would here allude to the possibility of "altered character" resulting from shell shock. The moral tone of the individual may be changed for the worse, and this change of character may be out of all proportion to the severity of the original shell shock. With it there may be altered feelings, affections, temper, and habits generally. From the medico-legal standpoint this morbid mental state is very important in regard to responsibility, and must be duly recognized. I have seen such cases during the past twelve months, and no doubt there have been many of them.

TREATMENT.

It is now fully recognized that the various shell shock neuroses are very curable in the early stages, but much more difficult to deal with if allowed to drift, and, moreover, they can only be successfully treated by specially skilled neurologists, who have the entire confidence of the patients. Many letters have appeared in the general and medical press recently condemning the congregating of shell-shock patients and their association for treatment under a common roof. Such statements are misleading and wrong, for if these patients are associated for skilled treatment in a special hospital they are greatly assisted to recovery by contact with those patients whom they see are improving daily, and who will encourage them to persevere in the treatment so as to regain their self-control and self-confidence. That it is bad to congregate shell shock patients with others who are suffering similarly and are not improving through want of special treatment, I readily admit; and the non-improvement of the cases in sectional, auxiliary, and voluntary aid detachment hospitals under excess of sympathy, encouragement of auto-suggestion, and want of special treatment, has, I fear, been the cause of the statements alluded to.

In the early days of the war the treatment of shell shock—the outcome of the terrible explosives now used and the continued mental and physical strain of trench warfare—was not understood, and by some many of the symptoms were attributed to fear. This was soon corrected when it was found that many of the indubitably bravest men fell victims to it. Then came a complete

revulsion of feeling. The terrible picture presented by the acute sufferer appealed most forcibly to the finer sentiments of all, and an excess of sympathy and indulgence followed quickly. The patients were nursed with the tenderest care, surrounded with luxury, and considered in every way. Nerve tonics and sedatives were freely given, and when the milder cases improved somewhat, these patients were sent on sick leave to their friends, who said: "He is very low spirited; we must have a few people in and a merry evening to cheer him up. He wants a little stimulant, whisky or wine. We will take him for a motor ride. He shall go and stay with So-and-So at X (a large town, low-lying and relaxing), and be taken to the theatres and cinemas." All bad for the patient! So he did not improve, and a relapse frequently followed.

Now the treatment which has been found most efficacious is very different. The patients with acute symptoms are kept in bed, but made to get out and walk a few steps every day, when able, and are transferred to the Neurasthenic Hospital for special treatment as soon as possible. In the meantime, if sleepless, they are given medinal, trional, or bromide and chloral at night. Absolute quiet and fresh air (verandah life if weather permits) are essential, and no stimulants can be allowed. These acute cases are mostly treated at the base, at Netley, and in the special nerve hospitals of the command. I have seen patients, however, who have been kept in bed for weeks and weeks, petted and favoured in every way, who made no effort to help themselves, and consequently made no progress whatever. These were speedily moved to other surroundings, for treatment elsewhere.

The milder cases with tremors and those with hysterical or pithiatric, and mild hystero-epileptic symptoms improve under bromide and valerian, nux vomica, arsenic, and other nerve tonics, but environment and habits of life play an even more important part than drugs. Convinced of this I drew up last November the following "rules of health" for these patients, to be specially applicable to those in the sectional, auxiliary, V.A.D. and Red Cross hospitals, and to convalescents on sick leave. These were approved by the Deputy Director of Medical Services and issued.

Rules of Health to be Observed by Shell Shock and Neurasthenic Patients.

1. Live as much as possible in the open air by day and night. Always have a window open at night.
2. Exercise both of body and mind is essential, but it must be carefully regulated and never taken to exhaustion. When the legs tire, sit down. When the head swims or aches and you cannot collect your thoughts, put the book down.
3. Avoid crowded rooms, cinemas, and theatres. Excitement and close rooms are harmful.
4. Avoid all alcoholic stimulants; they are most injurious in shell shock cases, as also is the excessive indulgence in tobacco, especially in the form of the cigarette.
5. Keep early hours. To bed before 10 p.m.
6. Let the meals be regular and the dietary simple, liberal, and highly nutritious. Rest for an hour to an hour and a half after the midday meal.
7. Avoid cold baths until you can get the afterglow. Prolonged hot baths are enervating. Tepid are best.
8. Electricity and massage are of no use, except for wasted muscles or stiffness of joints.*
9. Exercise self-control to re-establish self-confidence by re-education, recognizing all the time that your condition is one which should result in complete recovery.
10. When on leave and your movements are under your own control: (a) Be in the country rather than in a town. (b) Avoid all worry, noise, and excitement, all raided areas, proximity to training camps, and the jar of explosives and gunfire. (c) Never travel by train, motor car, or tram if you can avoid it. (d) Stay at a high altitude where the air is bracing in preference to a low level, where it is generally relaxing. This does not apply to bracing seaside resorts.

Carefully controlled employment of mind and body is most necessary to expedite recovery and divert the patient's thoughts. He must be out of doors whenever the weather permits, engaged in gardening, wood-cutting, and outdoor sports and games, and, when indoors, in workshops, and in taking part in the various amusements of home life. Clear, bracing air is very important. A number of our neurasthenic officers who were not doing at all well in a palatial low-lying residence were moved to a castle at a higher altitude a few miles away, and they improved at

* This rule requires qualification. It means electricity and massage in unskilled hands, and not in those of the skilled physician, to whom electricity is most useful in demonstrating to the patient that his muscles will act if he has confidence and will make the effort.

once. Patients moved from large towns to bracing seaside resorts have made similar progress.

For the severe neuralgic headaches we give aspirin and phenacetin, and, to those who have been in Mesopotamia and Salonica, quinine. The man who stammers needs re-education. I tell him to read aloud to himself for half an hour, morning and afternoon; then to read to one or two of his fellow-patients, one of whom, if possible, should have had the same trouble and got the better of it. Treatment of functional paralyses and hysterical symptoms by hypnosis and psychotherapy has given excellent results with a high percentage of permanent cures. Psychotherapy is the chief method of treatment adopted at the Neurasthenic Hospital, Maghull. It embraces suggestion, persuasion, therapeutic conversations, re-education, and exercise of the functionally paralysed limbs. The physician, as it were, masters the patient, gains his entire confidence, analyses his troubles and morbid ideas, and sets his mind at rest.

A Special Neurasthenic Invaliding Board under the Ministry of Pensions deals with shell-shock cases, and most difficult are these patients to adjudicate upon, for many will recover completely when they are once out of the army, and have lost all fear of ever again being in the fighting line. It is doubtful whether any of the many I have examined in this command will be fit for active service in the fighting line during this campaign, but I believe nearly all will ultimately recover, and many of them are brave fellows (there are V.C.s among them) who have given of their best in the service of their country.

WAR PSYCHOSES OCCURRING IN CASES WITH A DEFINITE HISTORY OF SHELL SHOCK.

BY

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The opinions here expressed have been formed from the examination of over 4,000 cases of soldiers admitted to the Mental Division of the Lord Derby War Hospital from the Expeditionary Forces. The symptoms have been all quoted from personal records and observations on cases where the history showed definite proof of actual close proximity to shell explosion.

The following were by far the commonest: Amnesia, melancholia, mental confusion, delusions, and hallucinatory disturbances. The condition of stupor was also met with, but was not so common as the aforementioned, and in some instances the sequence of events showed that cases which had been admitted to hospital originally as definite cases of "shell shock" have subsequently passed into a neurasthenic condition, which again has not improved, but drifted into states closely resembling dementia praecox. Retardation of thought was a pronounced symptom in the majority of cases; mutism and deafness were also met with. Associated with the above symptoms were headache, insomnia, terrifying dreams, general nervousness, and varying strange sensations in the head. As regards the physical signs, the deep reflexes were always very much increased, tremors were present almost universally in the tongue and outstretched hands, and the pupils were generally dilated. Frequently patients complained of throbbing sensations in the precordia, clamminess of the skin, and appeared before one as highly strung and emotional.

Amnesia.

This, in my experience, is by far the most common symptom; the cases that have come under my review have covered periods of very varying duration. I will give a few of the very many instances:

CASE I.

Pte. L., admitted with the history that after leaving the trenches he had absented himself from his unit, and when found could not state where he had been or what he had done with his belt or bayonet. He appeared generally strange, and on this account was evacuated to England as a mental case. The period of absence in this case seems to have been only a few hours, but on recovery from his accompanying mental symptoms in this hospital he sternly denied that he had any recollection of what happened or where he had been during