ILLUSTRATIONS OF HYDROPATHY IN PRACTICE.

By Alex. Robertson, M.D., Physician, Royal Infirmary, Glasgow.

I. COLD DOUCHE IN ALCOHOLIC CONVULSIONS.

The use of whisky in excess does not give rise to convulsions so frequently as absinthe, so much drunk in Paris and other large cities in France. Still, seizures of that kind do occur not infrequently among British drunkards. When this happens there are usually a few epileptoid attacks, after which there are no more till the next drinking-bout, when they generally return. Such fits recurring time after time may ultimately establish the epileptic habit, though this result is not common. It is also rare that severe and protracted convulsions, not intermittent but continuous, like those present in the case here recorded, are met with in practice. The following is a short account of it:

J. S., at. 45, cloth-lapper, was admitted into the Infirmary on 22nd September 1896, at 8.20 a.m., suffering from general convulsions; he was also deeply cyanosed and unconscious. It was stated by the police who brought him that he had been found in that condition, less than an hour previously, in one of the streets of the city.

On arriving at 9.15 a.m., I found patient suffering from convulsions, much more in right arm and leg than in left extremities, but bilateral in abdomen and face. The latter was very congested and purplish in colour, owing to the depth of the cyanosis; he was absolutely unconscious. The convulsive movements were continuous, though slightly greater at one time than another. On putting a teaspoonful of water into his mouth, it seemed to pass into his windpipe.

At 9.25 a.m., the cold douche to head was begun. An almost constant full stream of water from a large jug was poured on his head, which was held over the side of the bed. About ten minutes after this application the convulsive movements stopped in the face, and he was less cyanosed. He also turned his eyes and head in different directions, with apparent but no real consciousness. Meanwhile, movements in right limbs and right side of abdomen continued as active as ever. After this the cold douche was continued, with an interval of about half a minute between the jugfuls, till about a quarter or ten minutes to 10 a.m. At that time the spasmodic movements were less decided, though present, but eventually ceased quite abruptly. At the same time there was marked reduction in the force of the pulse, which was about 100 in frequency.

The douche was now stopped. Hot applications were made to the surface generally, and pulse soon became more vigorous. The cyanosis got less in face, and there was an approach to imperfect consciousness.

At 11.20 a.m., patient vomited a quantity of dark-coloured liquid. He now lies perfectly quiet in bed, breathing regular, pulse 100, small and compressible. Pupils are rather small, but not minute. There is very complete palsy of the right arm with anaesthesia; at all events he
ILLUSTRATIONS OF HYDROPATHY IN PRACTICE. 47

does not wince when it is pinched, although he immediately winces and show signs of pain when left one is nipped.

He has obvious feeling in right side of face, and also a certain amount of feeling in right leg, though by no means so marked as on the left side. When pinched he growls inarticulately, and looks as if he were about to strike. This defect of sensation is obvious also to Dr. Thomson, house physician. (I am indebted to this gentleman for many careful notes of the case.)

23rd September, 9.40 a.m.—Dr. Thomson states that yesterday about 12 noon feeling and power were partially restored to right arm, both about equally. This morning there is distinct aphasia. However, on hearing his christian name, he pronounced it along with his surname. When questioned, he says, “on that chair,” obviously thinking he is expressing some idea. He does not say any more than these words, which are distinctly articulated. The different forms of sensibility are restored to right hand, but the impression of heat seems delayed in transmission. He is acutely sensitive to painful impressions. Power of hand, though improved, is still clearly weak.

24th September 1896.—To-day the patient’s speech is practically perfect, all anaesthesia and paresis are gone, and he feels quite well.

5th October 1896.—Personal history.—Apart from his drinking habits, patient has been a healthy man. Two years ago he was taken to the Town’s Hospital, having been found unconscious in the street. He had been drinking, and thinks it was a “fit of the blues.” He was unconscious for only two hours. Prior to the present attack he had been drinking hard for about a year. He had been dismissed from work a fortnight before coming to the hospital. He “went on the spree,” and remembers nothing that happened during that fortnight. No history or evidence of specific disease.

Family history.—There appears to be no hereditary nervous tendency. He has been married twice and has four children, all of whom are healthy and free from nervous disease. The oldest is 21 years of age, the youngest 15.

16th October 1896.—Dismissed to-day well.

Remarks.—When I first saw this man my impression was that he could not survive above a few hours, if the immediate cause of his convulsions and cyanosed condition were not quickly removed. The only other remedial treatment besides the one used, which might perhaps have proved effectual, was bleeding. Chloroform or chloral, often useful measures in urgent convulsive states, would have been dangerous in his profoundly unconscious condition, with death seemingly imminent. But bleeding at the arm was impracticable owing to the convulsions. The temporal artery might have been opened, possibly this might have succeeded. As, however, the apparent congestion of the cranial contents was probably secondary to the irritation of the nerve centres by the alcohol, it is at least doubtful if depletion would have had any controlling effect on the excited action of those centres. In this
connection it is worthy of note that the patient's temperature all throughout his illness was for the most part normal or subnormal, it never exceeded 99.4°. There was consequently no hyperpyrexia, nor was there inflammatory action.

The cold water probably produced its beneficial action by stimulation of the nervous system. The sensory fibres of the fifth and other nerves distributed to the scalp, would be powerfully impressed, and would exert a corresponding influence on the highest sensory centres. They in their turn would act on the great motor areas of the brain, ultimately controlling their abnormal action, and gradually restoring healthy function. It would be observed that the douche was continued for twenty-five minutes. The height of the stream of water was about 18 inches. As stated, it was poured from a large jug, and latterly about half a minute was allowed between the jugfuls. I may remark that the improvement at the end of ten minutes encouraged me to continue the application.

The successful result of the prolonged cold douche to the head in this case raises the question, Would it not be useful in other cases of protracted convulsions, especially those of great severity? There seems no reason why it should be restricted to the alcoholic group. Might it not prove equally serviceable in the status epilepticus, eclampsia, or renal convulsions? It is to be noted that the special feature of the treatment is the long-continued application of the douche.

This case also shows that a toxic agent, circulating throughout the whole mass of blood, may not only act prejudicially on one system rather than another, but even on one part of a system almost alone, leaving its homologue nearly unaffected. Thus in the patient the motor area of one hemisphere was much more affected than that of the other, the convulsions being occasionally largely unilateral. This greater susceptibility is, no doubt, due to molecular differences of structure, congenital or acquired.

Lastly, a symptom which has a physiological bearing is worthy of notice. There was temporary anaesthesia as well as loss of power on the side previously most convulsed. It is nearly twenty years since I first directed attention to this occasional association. When it occurs in relation to a one-sided lesion of the motor cortex, it lends a certain amount of support to the doctrine of the sensory endowment of the so-called motor convulsions, but if of toxic origin this inference is less clear.

II. FUNCTIONAL NERVOUS DISORDER TREATED BY COLD DOUCHE.

The functional nervous disorder which is still designated hysteria, as is well known, presents the most varied phenomena. This need not give rise to surprise when the extreme complexity of the brain is considered, each part having its own special
function, but all knit together by the most intimate connections. Obviously, if one centre is thrown out of gear—to borrow what appears to me an apt illustration from a factory, in which many machines are actuated by the one steam-engine, some being in action, others not—if that centre is no longer in operation there will be abeyance of its function. And from the intimation of its association with other parts, it is easy to understand how readily one or more of them may also be involved in disorder, or even possibly cease to act for a time, while the one first affected may have recovered its power. The difficulty is to understand the nature of a disturbance which in some cases is so ephemeral. The following case is a good illustration of the condition:

L. D., æt. 13; message-girl. Father died from consumption, and was nervous; mother also nervous, but less so. Patient got a severe fright three years since, but up till recently enjoyed excellent health. Menstruation has not set in, but mammae are somewhat enlarged. Two days before admission complained of sore throat, got very depressed, declared that her dead father was at the door, and wanted to let him in. The friend who accompanied her also said that she seemed to lose her sight and hearing and did not feel when touched. She also wet the bed.

Physical examination revealed no abnormal condition. She complained of pain at heart, and headache. Her expression was somewhat dazed, and she was very emotional, but spoke quite rationally. This was very much her condition when I saw her on the morning following her admission, except that the dazed aspect had passed away. I proceeded to use the method of treatment which I have named psychic impression, that is, fixing my eyes on the patient’s eyes, and addressing her in a resolute tone of voice somewhat as follows: “Now, you understand that this must cease, there must be no more of it.” To this she replied with a gasp, “Yes, sir.” At the same time she was prescribed a mixture containing valerian, ammonia, and ammonium bromide. There was no further neurotic disturbance, and she went home about four weeks after admission. During her stay she was cheery and obliging, and a willing worker.

She was readmitted on November 11, eighteen days after dismissal. Her mother brought her to the ward at the time I was engaged in clinical instruction. She stated that her daughter had remained well till nine days ago, when she was seized with convulsions, which continued the whole night, but subsided in the morning. Then, however, she was found to be deaf and dumb, and had remained so ever since, though various measures had been used by two medical men who were in attendance. Having satisfied myself that she was really both deaf and dumb, I proceeded to treat her in the presence of the students. First I tried psychic impression, but that failed. Then I had recourse to electricity—the interrupted current—as in another neurotic patient under my care, who was dumb, its application was immediately successful in restoring speech. A current so strong as to be very painful to the patient was used, but notwithstanding her suffering she wrote on a slate, “I’ll submit to anything to get back my speech and hearing.” The
poles were first applied behind the angles of the jaw, and, on that failing, the negative one was passed over the root of the tongue, resting a little above the vocal cords, the positive being on the back of the neck. Still we were foiled. I now resolved to try the cold douche. After the patient had rested a few minutes she was put to bed, her head held over its edge, and kettlefuls of cold water poured over it from a height of about eighteen inches. After the fifth one she produced a guttural sound. On the sixth she cried "Mother," but not distinctly. After two more she managed to implore me to stop, but yet another one was poured on her head. Then she was both speaking and hearing perfectly, almost overjoyed that she had recovered these lost senses. She was kept in the hospital about two months longer, till January 16, when she was dismissed. She was asked to return once a week, so that the psychic impression, which was systematically repeated from time to time while under our observation, might be maintained. She continues well, and has seemingly made an excellent recovery.

REMARKS.—Consider the very varied features of this case. The first symptoms were mental; there were delusions regarding her dead father and general confusion of mind; obviously, the cortical area associated with psychic function was greatly disturbed. But almost concurrently, according to the history, the centres for sight, hearing, and common sensation were involved—these senses were to some extent in abeyance. The whole of this disorder, however, quickly passed away. But, showing the instability of the girl's nervous system, in less than three weeks after her return home the morbid condition was re-established, but this time in the great motor regions of the brain, manifesting itself in general convulsions. Curiously enough, the next migration was more restricted, as only the neuromuscular arrangements for hearing and speech, including their centres, were implicated. This was her state on admission.

The case reminds me of one which attracted much attention in Glasgow some fourteen or fifteen years ago, the sequel of which was recorded by me in the Lancet about three years since. At the outset there was hemianesthesia, with the special visual defects which are often associated with the neurotic variety of one-sided loss of feeling. Some time after this passed away she became insane and was committed to an asylum. While there, under my care, she had the major form of hysterical convulsions. Then she recovered so as to be able to return to private life and earn her livelihood, though passionate and erratic in her conduct. Again her mind became fully disordered, so that it was necessary to remove her once more to the asylum, and ultimately she died insane.

In regard to the treatment pursued in L. D.'s case I have only further to remark that the success of the cold douche was very striking, especially in view of the failure of electrical treatment. Judging by my experience of other cases of neurotic disease, there
is good reason to think that hypnotism would have succeeded in this patient, but it is not desirable to use such an agent in one who shows so exceptional an instability of nervous system and mind.

Since the above was written, the following case has occurred. The patient, a lad, aged 17, farm-servant, was admitted into the Infirmary on the 25th January, his friends stating that he had been speechless from the day before. This had followed a "fit," induced, it was said, by his employer having censured him for a trifling fault. On asking him to speak, he made strenuous, almost convulsive efforts to comply, but failed; and he remained in this condition for three days after admission. He was then treated by faradism, extra- and intra-laryngeal, but without success. The current used was a strong one, as was accidentally proved both by myself and the house surgeon, Dr. Thomas. Then recourse was had to the cold douche; it was applied in the same way as in previous cases. After fourteen minutes of its application he began to articulate, and in three or four minutes more his speech was fully restored. There was no return of the disorder, and he was dismissed on the 4th February. On the 13th of the same month he was readmitted, again speechless, directly following a "fit" the night before. His "fits," I was satisfied, were of a hysterical character. No cause was assigned on this occasion. Without delay, the cold douche was again used, the house surgeon and students assisting. After ten minutes there was an approach to articulation, and in ten minutes more he could speak quite well. Altogether there was an uninterrupted application of the douche for sixteen and a half minutes. Then, as the pulse was clearly flagging, its use was at once stopped. The patient is at present (24th February) in the hospital, and we are endeavouring to prevent a relapse of his trouble as well as to fortify his nervous system by psychic impression.

III. Cold Douche in Functional Morbus Coxe.

The case occurred in the long past. Upwards of thirty years ago a relative introduced me to a family, a member of which, a lady about 30 years of age, had been invalided for at least a dozen of years, lying either in bed or on the couch, for the most part. If she did move about a little, she suffered much pain in the hip-joint. The most eminent surgeons of the day had seen and prescribed for her, but she had not derived much benefit from the treatment ordered by them. I was asked to look at the limb. There were none of the ordinary indications of organic disease in or about the joint. I concluded that it was the hysterical form of disease to which the late Sir Benjamin Brodie had directed attention. The friends were advised to attach the end of a few yards of tubing to the cold-water tap, and to direct a stream of water from a branch fitted into the other end upon the affected hip for about a quarter of an hour daily. I heard no more of my patient for some months. Then I learned that she had got quite
well under this treatment, and that she and the family to which she belonged were emigrating to California. There she got married, and I know that the joint has kept well ever since.

IV. Rheumatic Hyperpyrexia treated by the Cold Bath.

It is remarkable how slow the very natural idea that, when a person is suffering from an excess of body-heat in disease, it is right and proper to try and cool him, has been to commend itself to the popular mind as worthy of general acceptance and adoption in practice. How often even yet do we find the patient with burning skin carefully tucked in under the blankets, lest, it is said, he get cold. No doubt, according to present belief, moderate fever in not a few diseases is beneficial, helping both to lower the vitality of morbid microbes and destroy their toxins. But a temperature of 105° F., and upwards, though it produce these effects, adds a new and even greater immediate danger in the granular and fatty degeneration it induces in the tissues, especially that of the heart. Appreciating the importance of this fact, the cold bath was used in the following case:

J. H., set. 37, was admitted into the Infirmary on 15th May 1896, suffering from rheumatic fever of two weeks' standing; but, previously, she had "pains" for about three weeks. When seen by me on the morning of the 16th there were the ordinary symptoms of a somewhat severe attack of the disease. Systolic murmurs were heard both at the aortic and mitral areas, more marked at the former. Her progress is shown by the following entry on the morning of the 17th:—"At yesterday's visit (9 A.M.) I was impressed by slight tremor in voice and manner, and although temperature was only 103°-2 I apprehended that hyperpyrexia might occur, and left instructions respecting the use of the cold bath, and other measures, in that event. This morning it is reported that at 2 P.M. the temperature was 105°-2; at 3, 105°-8; at 4, 107°. She was then put into a bath at 90°, which was gradually reduced to 65°. After twenty minutes she was taken out and put back to bed, the temperature being then 101°-8; at 5 P.M. it was 98°-4. It soon, however, began to rise, and at 12 midnight it had reached 104°-6. 5 grs. of phenacetin were then given, and, in two hours more, sponging of the whole body with iced water, bit by bit, was begun and repeated every hour till my visit, when the temperature was 103°-6. She then felt very well, and said she had no 'pains.' Her pulse was 90, and fairly good. There was only a trace of albumin in the urine. 30 grs. of quinine were administered in doses of 10 grs. every two hours. Brandy was given before, during, and after the bath, for some days, in small doses, and at short intervals." On the 4th June she was all but well. Pulse was 72, and temperature normal. During her further stay in hospital the latter did not rise above 99°; the murmurs at the heart became less obvious, and there was a reduction in the transverse measurement of cardiac dulness of 1 3/4 in. in sixteen days. On the 3rd July she was dismissed well, except for the remaining valvular disease.
Remarks.—In this patient the special indication which suggested that hyperpyrexia might be about to set in was the tremor. Along with this was another suspicious symptom, the sudden diminution of pain. This was a marked feature in a case of a similar kind, with more quickly successful result, recorded by me in the *Lancet* about three years ago. In the latter there was complete cessation of perspiration, with disappearance of joint pain on the onset of the high febrile temperature. There was also a glistening eye, with excitement of manner.

In regard to the treatment, it will be noted that there was a further fall of temperature for forty minutes, when the patient was in bed after her removal from the bath. This was followed by a large rise, but great excess was apparently kept in check by sponging with ice-water, large doses of quinine and alcohol—about 5 oz. whisky in the twenty-four hours. Lastly, the diminution in the dimensions of the dilated and distended heart will be noted. It shows that this condition, at least if of short standing, may be satisfactorily overcome by other than the Schott system of treatment.

I should be sorry, however, if it were supposed from the last remark that I have no faith in that mode of treatment. On the contrary, apart altogether from my confidence in the recorded experience of Sir Grainger Stewart and other trustworthy observers, I am satisfied from observation that contraction of dilated cardiac cavities does take place both under the use of the special system of baths and the methodical resisted exercises. But I have seen as great and more persistent diminution of the area of cardiac dulness under rest and digitalis, with removal of the engorgement of the blood vessels, especially of the portal system and kidneys.

---

**Clinical Records.**

**Cases of Inversion of the Uterus.**

By R. J. Kinkead, M.D. (Dub.), Professor of Obstetrics, Queen's College; Physician and Gynecologist, Galway Hospital.

Inversion of the uterus is a rare, but, whether acute or chronic, a serious accident: it involves grave danger to life; and, when it does not prove fatal, causes much discomfort and suffering. In the vast majority of instances, inversion occurs immediately after labour, either prior to or following the delivery of the placenta: reduction of the displacement, if effected on its occurrence, is easy; in chronic inversion it is exceedingly difficult, possibly impossible.