THE BRINE BATH TREATMENT AT DROITWICH.

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The famous brine baths of Droitwich are, perhaps, not so well known as the baths of other celebrated Spas, but those who do know them, and have tried them, are convinced that they have no equal for sciatica and allied affections. Even that intractable disease, rheumatoid arthritis, is certainly improved, if not in some cases actually cured, by the celebrated brine treatment. I have visited these baths on many occasions both in winter and summer, and have conversed with a very large number of patients, many of whom have wasted large sums of money seeking health on the Continent and elsewhere in England before they were cured at Droitwich. I will therefore write a short description of the brine treatment, in the hope that it will be interesting to my brother officers who have not experienced the treatment as I have.

I will commence with a description of the brine, and then proceed to explain its uses.

The Brine.

Analysis of the brine has shown it to contain 20,000 grains per gallon of saline constituents in excess of that possessed by any other known water. The actual result of analysis is as follows: Chloride of sodium, 21761.8; chloride of magnesium, 2.5; sulphate of lime, 91.1; sulphate of alumina, 14.4; sulphate of soda, 342.7; iodide of sodium, 298; total salts to an imperial gallon, 22212.8.

Other analyses have been made varying slightly from the above, but they all prove that the Droitwich brine is the most potent in Europe, and from ten to twelve times stronger than the ocean. The brine is also radio-active, and its marvellous effect in cases of neurasthenia is attributed to this property.

The Uses of the Brine.—The British Medical Journal of June 15th, 1907, says: “As a place for bath treatment, Droitwich stands practically by itself in these islands. Hitherto, Droitwich has been modest both in its claims and aspirations, and has contented itself mainly with the treatment of chronic, especially muscular, rheumatism, and of sciatica. That the baths are extremely efficacious in a very large proportion of sufferers from these complaints is incontestable. Garrod, an impartial authority, in his article in the report of the Medico-Chirurgical Society on the watering places of Great Britain, speaks of the place with strong approval in connexion with complaints of a rheumatic nature, and Weber mentions its use as a tonic after acute illness.”

The marvellous cures of chronic sciatica are, I think, the most striking to the medical profession. I have seen patients who have been crippled for months, and even years, able to run and jump and play tennis after a course of treatment at Droitwich. Sufferers who have
given up all hope of cure, and have at last consented to have the sciatic nerve cut down upon and stretched, have recovered at Droitwich without any operation.

Many theories have been propounded to explain how the brine acts.

Absorption through the skin is suggested because the acidity of the urine is greatly diminished, the output of uric acid being eventually lessened. The patients themselves soon remark the change in colour of their urine, and the absence of pink deposit so well known in lithaemia. I have noticed that the urates are increased at first, and afterwards, as the urine becomes alkaline, they become diminished. There is no doubt that the brine acts in some way as a powerful uric-acid solvent, and that the radium emanation has something to do with this. I have seen wonderful results in neurasthenia, and I understand from the local physicians that these good results are due to radio-activity. This seems the most likely explanation, and is probably the reason why professional football players are sent to the brine baths to recuperate after a severe contest; the brine swimming bath is also frequently made use of by them when training. Professional athletes have told me that nothing sets them up more quickly than a few brine baths after a desperate struggle on the football field.

There is yet another advantage in balneo-therapeutics connected with the brine swimming baths which I believe is unique. Every deformity which can be cured by graduated exercise can be cured in the swimming bath. The density of the water is so great that exercises may be made very hard or very easy, according to the pressure exerted by the patient and the kind of exercise selected. The buoyancy of the water is so great that the bather can stand upright in the water, walk in the water, sit in the water, or even lie on the top of the water as if lying on an air bed; but there is one thing he cannot do, and that is to sink, and it would take enormous force to push him under. When lying upon the water, the limbs are equally supported in every direction by the saturated solution of brine; so that the patient can perform certain movements which he dare not attempt on land on account of the pain. These exercises have been successfully employed in the treatment of scoliosis, and to exercise painful joints; they are most useful during the convalescent stage of sciatica, also in the after-treatment of fractures and other surgical injuries.

There are two bathing establishments—The Royal Baths opened in 1836, and the St. Andrew’s Baths, erected some forty years afterwards. There are three magnificent swimming baths with separate accommodation for ladies and gentlemen, the whole replete with every comfort, and supplied with a pure saturated solution of natural brine, pumped direct from the triassic formation some 200 feet below the surface of the ground. The establishments contain private hot reclining baths, douche, needle, and vapour baths; a handsome new block just completed, com-
prises special rooms for Aix douche baths, Nauheim baths and other modern forms of treatment, together with luxuriously-furnished cooling rooms. In the reclining baths, which are made of teak, wooden bars are placed across and over the patient to keep him immersed; the usual period of immersion is from fifteen to thirty minutes, according to the temperature of the brine, which varies according to the prescription of the local physician, but is generally somewhere between 98° F. and 101° F.

After the immersion the patient may rest in the dressing-room wrapped in hot sterilized towels, or be given a needle or douche bath, or gentle exercise in the swimming bath, which is always kept at a comfortable temperature. The charges for the baths are quite moderate, viz.: At the St. Andrew’s baths the reclining bath, first class, 2s. 6d.; swimming bath, 1s. 6d. At the Royal bath, reclining bath, first class, 2s.; swimming bath, 1s. There are excellent hotels close to the baths, and the charges are not high. Before taking the baths, on account of any ailment, one of the local physicians should be consulted. I have known actual harm result from an attempt to treat oneself; indeed, those who have been to Droitwich, and have not benefited, have either tried to treat themselves or neglected to carry out the instructions of the local physicians. There are certain diseases which are aggravated and accelerated by the action of the brine, for instance, malignant disease, the growth of which is rapidly increased. The brine will cure almost every variety of uric-acid disease, both those belonging to the collicmic, and also to the arthritic, group. Ordinary cases are not as a rule put on special diet. The manager of one of the hotels informed me that he had noticed that most of the patients who had been ordered a vegetarian or uric-acid-free diet, after the first day or two went steadily through the hotel menu without missing anything. From my own observations I know he is right, and I am sure it is rare for the patient to restrict his diet notwithstanding the advice of the physician; however, they all seem to get cured at Droitwich sooner or later; so the diet question does not seem of vital importance when taking the brine baths. I am quite certain that if the patient is run down by constant pain, or otherwise debilitated, he will not stand a course of the brine baths unless he is well fed; as the brine promotes rapid and effective metabolism, it is obvious that the appetite must be increased. The town of Droitwich is not very attractive, but the surrounding country is charming, and there are sufficient amusements for an invalid. Droitwich is not a fashionable health resort like Harrogate, nor can it boast of such magnificent places of amusement; but then people go to Droitwich to get cured, and not simply to “take the waters.”

Droitwich is the place to go to when the disease is serious, and Harrogate afterwards when the patient is convalescent.

Droitwich is seven miles from Worcester, and is easily reached from Paddington, on the Great Western Railway, the journey taking about two and a-half hours from London.
The salt produced by evaporation of the brine is of very little use, for it has lost its important radio-active property, and when re-dissolved, it merely furnishes a strongly alkaline bath.

Professor Wilhelm His, of Berlin University, says "That under the influence of radium emanation, the blood loses its uric acid within a few weeks." He also states "That experience, however, has long since taught us that it is not only the deposit of uratic salts which can cause an inflammation—a rapid solution of these salts may do the same. In the majority of cases, at all events, the radium treatment of gout is a very powerful remedy, even if some persons are refractory to the treatment." With regard to diet, he says, "I have never been able to satisfy myself that any special diet, or the limitation of meat, exercises a beneficial influence on the course of rheumatic affections. On the other hand, a dietic treatment of gout is essential, even in conjunction with the employment of the radium treatment." In conclusion, it may be interesting to mention that patients sometimes complain that the pain in the joints is worse after the first two or three brine baths, and that they feel pain in other parts hitherto unnoticed. This is due to the rapid solution of the uratic salts which have been deposited in various parts of the body, and the pain eventually disappears as soon as the uric acid has been dissolved out and eliminated.

Lecture.¹

FIELD AMBULANCES.

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Before discussing the various methods of handling field ambulances during actual warfare, there are certain points concerning these units to which I think your attention should be drawn. Field ambulances cannot be utilised in the manner intended by the War Office unless they are organised and equipped strictly in accordance with the various regulations, and further as the Administrative Medical Officer—not the Officer Commanding Field Ambulance—is the officer responsible for the tactical disposition of these units, the necessity for perfect organization must be apparent to you all.

In order that a complicated unit—like a field ambulance—can work satisfactorily, and in the manner intended, it is imperative that each man

¹ Given to Medical Officers of the West Lancs. Division Territorial Force.