NOTES

ON

A VISIT TO PISTYÁN.

By SIR T. SPENCER WELLS, BART., F.R.C.S.

Consulting Surgeon to the Samaritan Hospital for Women and Children.

I HAD heard occasionally for many years past of remarkable recoveries of patients crippled by gout or rheumatism, or by chronic diseases of joints; also of great benefit derived in many paralytic cases, after a course of the baths at Pistyán, in Hungary; and last September, before attending the Hygienic Congress at Vienna, I determined to visit the place. I could find very little about it in any of the guidebooks, or in works on bathing-places. Bradshaw's *Dictionary* says it is on the route from Vienna to Pesth, which it is not, but on a branch line which turns up northwards at Pressburg. In Baedeker's *Southern Germany*, in the account of the railway route from Pressburg along the valley of the Waag, it is correctly stated that at fifty miles from Pressburg we reach Pistyán, "with the favourite baths of that name, used as a remedy for gout and rheumatism, on an island in the Waag. On the 26th of July, 1599, the Turks attacked the baths when attended by numerous patients, massacred the men and carried away the women as prisoners." This is all that I could learn from books, but fortunately I found an old friend there, a former "opérateur" of Professor Albert's clinic in Vienna, who had been practising there during the summer, and who had been so favourably impressed by what he had observed that he had decided to return there next season. From him, Dr. Wilhelm von Vragassy, I received even more favourable reports of the efficacy of the treatment carried out at Pistyán than I had heard in England; and the few notes I made on the spot may interest practitioners who are consulted as to the choice of a Continental bathing place by patients who desire—in addition to rest and the change of air, scene, diet, and mind to be obtained at almost any of the well-known places of resort—something more decidedly curative in cases of serious chronic disease. The well-known Vienna surgeon, the late Professor von Dumreicher, some thirty years ago recovered from very obstinate sequelæ of blood-poisoning most unexpectedly, and continued to send patients to Pistyán every year until his death. He poisoned the middle finger of his right hand during an operation, and long after danger ceased stiffness of the finger and hand disabled him from operating until he recovered at Pistyán. And Duchenne has spoken of the great use of both the baths, the water taken internally, and the sulphurous mud, in cases of severe sciatica.

The town or village (in the Hungarian language Pöstyén) has some 150 houses and about 1,000 resident inhabitants. There are about 800 furnished rooms for visitors, a comfortable hotel, a *cur-park*, or pleasant public walk on the banks of the river, with a theatre and the usual music and amusements of a German bathing place. All this, at present, is on a small scale, but it is expected that before long a society of neighbouring proprietors will unite in the endeavour to rival Vichy, Homburg, and Carlsbad. The bathhouse is on an island in the park, formed by a division of the Waag into two branches. The season opens on May 1st, and closes on September 30th. In one bathhouse there are about twenty private bathrooms, and one so-called mirror-bath, about 4 feet deep, in which patients may sit or swim. In another house there is a public bath, about 4 feet deep, the water at a temperature of 98° to 104° F., where patients of both sexes in bathing costumes take their baths in company. In the private baths the temperature of the water is usually from 86° to 98°. In this second house there is also the mud bath, 2½ to 3 feet deep, the temperature of the mud varying from 100° to 105°. Here the natural warm water springs up in different places amid the mud, which is the only foundation of the baths. In this building there are also forty cabins for the local application of the mud to joints only or to some special region. Close by are the springs of the mineral water for drinking. The temperature of the water in the springs varies between 45° and 51° Réaumur (132° and 147° F.). It is quite transparent and colourless, has a slight odour of sulphuretted hydrogen, rather a pleasant taste, and slightly reddens

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litmus paper. Analysis shows that it contains rather more than a drachm of sulphurous acid in 16 ounces, a little carbonic acid, and some lime, soda, potash, and magnesia, with a trace of phosphate of iron. Another analysis gives rather more than 3 cubic inches of free carbonic acid, and half a cubic inch of free sulphuretted hydrogen to the pound of water. The mud (*Schlamm*) which is found as a foundation wherever the hot water springs up, is of a greyish-green colour, and of the consistence of soft butter. It is much hotter than the water and cools more slowly. This mud is the real *specialité* of Pistyán. It has a much stronger odour of sulphuretted hydrogen than the water. In 100 parts of the mud there are said to be some 65 of silicious earth, 13 chalk, 6 oxide of iron, 14 clay, and a little phosphoric acid with magnesia, and some organic substance.

I took one of the water baths at about 95° for twenty minutes, simply as an experiment. On getting out of the bath an attendant carefully covers up the bather in linen sheets and woollen coverlet, and leaves him to repose and perspire for half an hour or more. In many cases the perspiration is kept up for a definite time, and the patients are not allowed to walk to their apartments, but are taken in a sedan chair or small carriage. Bronchial catarrhs, uterine and bladder catarrhs, and chronic intestinal catarrhs, are all greatly benefited by a course of these baths, and children with whooping-cough are said to be very soon cured by staying in a room which contains the vapours from the Pistyán water. Constipation, hæmorrhoids, and amenorrhœa are also relieved, probably by the continuous free action of the skin lessening venous congestion, restoring the contractility or tone of the relaxed or dilated veins, and leading to increased appetite and better assimilation of food.

But the most remarkable effect of the Pistyán treatment as a whole—baths, water, and mud—is the removal of chronic exudations, especially those about joints and tendons, which have caused the so-called "spurious ankylosis." Patients thus crippled, with more or less evidence of peripheral paralysis, and some where paralytic and neuralgic conditions are evidently associated with, or follow, some serious change in the central nervous system, are among the most numerous and the most successful of the cases which have kept up the reputation of Pistyán. Many inveterate cases of sciatica have been completely cured. In one sentence it may be said (using the words of the late Dr. Scherer, who wrote on the combination of electricity and massage, with the Pistyán treatment) that this combination "stimulates and increases the vital functions of the skin, the mucous membrane, the nervous and circulatory systems, and consequently leads to absorption of pathological products." The last effect is greatly promoted by the mud baths, sometimes used for the whole body, but more often for one joint or limb, either immersed in some suitable vessel, or used like a poultice.

It is evident, therefore, that the Pistyán treatment is resorted to in a great number of different conditions, the chief of them being those which are loosely called "gouty," and which lead to more or less swelling, stiffness, and deformity of the joints, and are associated with the uric acid diathesis. Next to the gouty come the rheumatic affections of muscles and joints, ankylosis, and neuralgias, especially sciatica. Sufferers from chronic rheumatism soon experience remarkable benefit; and so do many with chronic periostitis, whether a sign of tertiary syphilis or not, and many paralytic cases, especially hemiplegia which has followed an apoplectic attack or some wound or injury, or lead or mercurial poisoning. I also heard of some remarkable cures of facial paralysis, and of relief to the pains of locomotor ataxy. These are the cases where electricity and massage are principally employed in addition to the other treatment with a rational surgical and orthopædic treatment on the principles of modern surgery. After the last war a great many wounded men who had suffered from simple and compound fractures of bones, or chronic exudations after other injuries, or neuralgia after amputations or resections, recovered rapidly at Pistyán. And so with other chronic inflammatory swellings of glands, pelvic exudations, metritis, and its results, uterine fibroma and hæmorrhoids. Such are the cases where, as is well known, sulphur baths at Ischia and other places have been the great popular remedy. But at Pistyán we have, perhaps, the best of the sulphur baths hitherto made use of, more powerful and less disagreeable than any of the others.

I can scarcely doubt if the Government, or some powerful association of scientific and moneyed men, carry out a plan which has been proposed for developing Pistyán after the fashion of

better known watering-places which are far inferior in real therapeutic power, that this Hungarian spring will become of far greater use than it has been to suffering humanity, and will be resorted to by invalids, not only from Europe and America, but from India and our colonies, and amply repay the enterprising minister or financier who provides what is required by the invalid traveller in search of health, and by the relatives or friends who accompany him.

REMARKS

ON

DIABETES MELLITUS, AND ITS TREATMENT WITH THE MINERAL WATERS OF CARLSBAD.

By B. HOFMEISTER, M.D.,
Carlsbad.

ABOUT a century has passed since Carlsbad waters began to be used in diabetes mellitus. At that time, when the number of watering places was very small, all patients with chronic, hardly curable diseases, were sent there as a last resource; when it became known that some diabetic patients had derived benefit from its waters, Carlsbad was for a time regarded as a specific. At the present time the number of health-resorts has enormously increased, and some of them boast of the same efficacy in diabetes as Carlsbad; pamphlets have been issued denying that Carlsbad has any efficacy, and various methods of treating the disease have been invented; yet the sufferers from that disease mostly prefer the Carlsbad waters, and the number of them who visit it increases every year. That this reputation is fully justified will be shown in the course of this paper.

I do not propose to discuss the multifarious theories as to the etiology of diabetes which have been propounded by Claude Bernard and so many others, up to the present time; I will only refer to Ebstein's recent hypothesis, which has some relation to the Carlsbad treatment.

Whilst most authors seek the origin of diabetes in a disorder of one organ of the body—the liver, stomach, pancreas, kidney or brain—Ebstein places its seat in the protoplasm of nearly all the cells of the body; but he denies that the presence of sugar in the urine is the result of a deficient combustion of the normal amount of sugar into carbonic acid and water, and refers it to an over-formation of sugar, occasioned by the want of a sufficient amount of carbonic acid in the protoplasm of the cells. By a series of chemical experiments he has found that the capacity of diastatic ferments to decompose hydrocarbon is much restricted by the presence of a certain amount of CO_2 ; when this is lessened, the glycogen in the human tissues, he says, will easily be transformed into sugar. He thus looks upon diabetes as a chemical disorder, due to an anomalous nervous influence, the nature of which, however, he is at a loss to explain.

According to this theory—the truth or falsity of which has still to be established—the direct introduction of CO_2 into the protoplasm by the blood would be a rational method of treating diabetes; Ebstein goes so far as to recommend injections of CO_2 into the rectum. Now, it is certain that alkaline waters containing a large quantity of free carbonic acid, especially those of Carlsbad, tend to lower the amount of sugar in the urine, and consequently somewhat to improve the health; but, on the other hand, it cannot be denied that their curative action is but slight, compared with that of a proper antidiabetic diet, consisting in the main in avoiding sweet and farinaceous food. The combination of both these plans must still be regarded as the best method of treating diabetes; therein all Carlsbad physicians are agreed. They differ only in one point, namely, as to the significance which is to be attached to the quantity of sugar to be found in urine, in regard to the prognosis and treatment of diabetes.

As is well known, two forms of diabetes are usually distinguished; (1) the slight form, the amount of sugar being directly proportioned to that of starch matters taken by the patient, and accordingly entirely disappearing if they are only abstained from;

(2) the severe form, in which more or less sugar is present in the urine, in spite of the strictest antidiabetic regimen, and in which therefore sugar is formed also from albuminates. This classification, however, which cannot be applied to each individual case, and does not comprise all cases, has been much criticised of late, and will probably soon be abandoned.

As a guide in treatment, I venture to propose a practical division of diabetes into three large groups.

(a) *Sugar in Proportion to the Severity of the Disease.*—A great many of the most conspicuous symptoms (sugar in the urine from 1 to 7 per cent, polyuria, polydipsia, emaciation, languor, impotence, etc.) were present. This form is by far the most common of all, and, as it can never fail to be clearly recognised, we may call it “diabetes manifestus.”

(b) *Much Sugar, with Slight Diabetic Symptoms.*—In patients of this group we may find from 1 to 5 per cent. of sugar, and even more, and yet with such slight diabetic symptoms that they escape the notice both of the patient and the physician. Here we mostly observe disorders of the stomach and intestines, sometimes of the nervous system. The diagnosis is incidentally made by an examination of the urine. This form is more frequently met with than might be supposed, and is rightly called “diabetes decipiens.”

CASE I.—T. B., lawyer, middle-aged, had always enjoyed good health. In the year 1887 he first complained of *malaise* and irritability of temper, which he was inclined to ascribe to slight dyspepsia with constipation. Having formerly been of a cheerful disposition, he gradually became moody and irascible, and in August, 1887, he went to Switzerland, thinking that rest and change of scene would do him good. At Geneva he consulted a physician, who accidentally sat at the same *table d'hôte* with him, and thus had the opportunity of observing the patient's inordinate fondness for sugar and sweets. Out of mere curiosity he analysed B.'s urine, and was surprised to find 5.5 per cent. of sugar two hours after dinner, and about 3 per cent. at different hours on the subsequent days.

At the end of August B. came to Carlsbad. Here I could detect no symptom pointing to diabetes beyond a certain degree of nervousness manifesting itself, particularly in headache and insomnia. At first I was inclined to look upon the case as one of simple glycosuria, due to the vast amount of sugar consumed by the patient, although in normal constitutions we find at most very slight traces of sugar from this cause. I soon became convinced, however, that I had to deal with a real diabetes mellitus, for, though the patient abstained entirely from sweet matters, from 2 to 3 per cent. of sugar was still found in the first week of the treatment; the following week it gradually decreased, and in a fortnight it had wholly disappeared. With the cessation of sugar-excretion the patient greatly improved, the headache and insomnia left him, and he regained his natural cheerfulness. The last week he was allowed to take a moderate amount of farinaceous food (80 grammes of white bread in the day), of all sorts of vegetables, and of uncooked fruits, without the sugar reappearing. During the following three years his health remained excellent, when suddenly, without any evident cause, a relapse occurred in July, 1887, which was again cured by the Carlsbad treatment.

CASE II.—B. P., aged 42, was sent in 1886 to Carlsbad for habitual constipation of very long standing. Many remedies had previously been tried in vain. The patient's habits were not sedentary; he did not suffer from hæmorrhoids; his appetite was pretty good; there was no apparent disorder in any other organ. His urine was found to contain 4.6 per cent. of sugar. On being closely questioned he remembered having sometimes felt dryness of the tongue, and he had become somewhat thinner of late. He had always drunk beer very freely, and was not conscious of greater thirst than heretofore. After four weeks of treatment he left Carlsbad without a trace of sugar. Next year, 1887, he came again, but this time only “to show himself,” for he had not been troubled with dryness of the tongue, and his bowels acted regularly; in short, he felt perfectly well. I was the more surprised to find again 3.2 per cent. of sugar; he had kept at home on stricter diet only for some weeks, and then, feeling quite well, indulged in ordinary food, like other people. Three weeks of Carlsbad treatment sufficed this time to remove all trace of sugar; the patient on leaving was advised to diet himself strictly for a whole year.

I am of opinion that all forms of diabetes decipiens exist only for a certain time as such, for one year or two at most, after