disease, lead poisoning, and so on. Harrogate has the advantage that treatment can be carried out in some cases as well in the winter as in the summer, and our sulphur bath, from its soothing effect in some cases of gouty eczema, etc., has earned the title of the Velvet Bath. In 1626 Dr. Dean wrote concerning one of the first wells:

It dries up the too moist brain, and helps rheums, palsies, cramps, etc. It is good against inveterate headache, megrims, vertigo, epilepsy, convulsions, and the like, cold and moist diseases of the head. It cheers the spirits, strengthens the stomach, and promotes digestion. It's good in black and yellow jaundice and hippo, as also in cachexy and beginning dropsy, seeing it opens obstructions and expels redundant serosities, etc.

This is a formidable list of diseases to be cured by one spring, so that since we multiply that spring by 80 we ought to be able to cure almost any disease to which the flesh is heir.

In 1841 Dr. Granville, author of *The Spas of Germany*, in his *Spas of England*, says:

Among the few really important spas of which England can boast I hold Harrogate to be of such manifest superiority—indeed, I was almost going to say uniqueness—on account of the peculiar nature of its waters (if properly managed), its sulphur mud, now first recommended, and its situation, that I felt anxious to bring all its merits before the general readers more fully than any medical treatise had done before. Harrogate has the elements within itself of becoming a spa of the first magnitude, even to the extent of attracting foreign travellers.

Harrogate, from its position, soil, geological conformation, salubrity, and the beauty of the surrounding country, with its abundance of sunshine, small rainfall, and dry, bracing, breezy air, with its two climates, mild and invigorating, is justly termed the Queen of Watering Places, having home comforts, able physicians, and unequalled sanitation, and rivals the much-vaunted resorts of the Continent.

Harrogate stands pre-eminent to all places in Europe for the extraordinary variety of its mineral springs. It possesses springs analogous to almost all the mineral waters spread over the whole of Europe.

It has stood the test of time and is becoming year by year more popular.

PAROTITIS ASSOCIATED WITH GLYCOSURIA AND ACIDOSIS.

By LAURENCE M. ROUTH, M.B., B.C. CANTAB.,

LONDON.

THE association of unilateral parotitis with a transient but well-marked glycosuria is a combination of which I can find no trace in medical literature, and may therefore be of interest to place on record. I have permission to record this case from Dr. Harrington Sainsbury and Mr. Stanley Boyd, who kindly asked that I should be associated with them in its management.

The patient, a somewhat stout but active man of 58 years, first complained of swelling in the right parotid region two to three days after a short railway journey in a very crowded carriage on Easter Monday, April 8th, when he had been obliged to stand just by the window, which was open a few inches at the top, in such a position that a direct current of air was thrown on the right side of the face.

When I first saw him, on April 13th, there was definite fullness, but no tenderness over the site of the right parotid gland. There were also two small superficial and non-indurated ulcers on the tongue on the right side, apparently a direct result of the patient nipping his tongue during sleep after removal of his false teeth. There was at the same time slight relaxation of the pharyngeal mucosa, especially on the right side. The ulcers and throat were painted with a solution of iodine. There was then no constitutional disturbance, and the patient complained no further.

A week later he had a feverish chill, with a temperature that reached 102°, a kind of attack to which he is liable. This cold lasted four to five days, during which there was no advance in the original parotid swelling.

It was not till April 20th that the patient again complained of pain and tenderness over this area. The swelling gradually increased in size, involving also the submaxillary gland on the same side; there was no lymphatic infection. There was considerable pain and constitutional disturbance, the temperature

reaching 103° on April 27th. Hot fomentations were then applied two-hourly, and gargling with hot borax solution was practised frequently.

The jaws could be separated only about a third of an inch and the teeth on the right side could not be approximated. There was also much swelling and tenderness in the region of the right tonsil.

On April 28th the condition was worse, breath very foul, and speech well-nigh impossible. As a preliminary to a possible anaesthetic in case of the presence of pus being proved, the urine, which, so far as the patient knew, had always been quite normal, was examined. It was very acid, specific gravity 1038, there was a trace of albumen and a large quantity of sugar shown by a well-marked reduction by Fehling's test. Both acetone and diacetic acid were also present in a well-marked degree; the urine was passed frequently and in large quantities, and there was considerable thirst.

This unlooked-for complication was dealt with by large doses of gentian and soda, and a bottle of Vichy water daily. There was never any tendency to coma, but there was intense restlessness, and sleep was attained only by the use of aspirin, soporifics proving useless.

On April 29th, the temperature still remaining about 102°, the mouth could be opened better, the right tonsil and palate were freely punctured under cocaine, pus being believed to be present; none was found, but the incisions bled freely, and the difficulty in swallowing became less marked, consequently the search for pus through an external incision was postponed. The swollen fauces and partly closed jaws rendered the administration of an anaesthetic undesirable; moreover, there was no clear indication of the locality of any pus; the uvula and tonsil were much displaced to the left; there was a considerable tender swelling of the right cheek, but little or no swelling behind the posterior edge of the ramus of the jaw.

Next day (April 30th) the slight improvement was maintained, though restlessness was still extreme. Both the parotid and submaxillary swellings were rather smaller and less tender. The uvula, which had been pushed completely over to the left side, was now returning to mid line. The urine showed a fall in the specific gravity from 1038 to 1030. The reaction was less acid. Sugar was present to the extent of 6 grains per oz., as demonstrated by fermentation test. Diacetic acid and acetone were still present. The temperature was somewhat lower, but still remained about 101°.

On May 1st more improvement, swelling of parotid less hard, tense, and tender; the submaxillary region was no longer tender, lingual ulcers healed. Urine, specific gravity 1021; just acid in reaction. Sugar 2 grains per ounce. No diacetic acid demonstrated.

On May 2nd: Urine specific gravity 1013, acid in reaction, and still contained a trace of albumen, but no sugar. On the following day examination of the urine gave a similar result. Coincidentally the temperature dropped to 99° and did not rise again. The parotid swelling was now very little tender, and the submaxillary gland, which during the height of the attack was swollen, tense, and tender, could no longer be felt.

On May 13th the urine remained free from sugar, the trace of albumen was now no longer present, and the parotid swelling was now unnoticeable except to a critical observer. There was no tenderness. The patient had lost 1 st. in weight.

The case is of interest in showing the coincidence of the glycosuria with the height and extent of the parotid swelling, and the associated marked constitutional disturbance; also the gradual and complete disappearance of the sugar from the urine *pari passu* with the subsidence of symptoms; the fall of the specific gravity of the urine from 1038 to 1013 within four days is noteworthy. At no time in the past had symptoms ever suggested the presence of sugar in the urine, and on several occasions during other ailments the routine examination of urine had shown it to be quite healthy.

Did the parotid inflammation cause some auto-intoxication with secondary effect on the metabolism of the pancreas as a cause of the glycosuria? There is, of course, some functional correlation between the parotid gland and pancreas, in that they both secrete a juice materially aiding in the digestive processes. Or is it that the parotid and submaxillary also secrete some internal secretion, the temporary disorganization of which may cause glycosuria? The fact that the left parotid and submaxillary glands were not involved, and that their internal secretions were therefore intact, would perhaps favour the former view.

With regard to the origin of the parotitis, I am uncertain whether to attribute it to the initial draught, or to an oral infection through Stenson's duct. I rather incline to the former view, owing to the facts that suppuration did not supervene, although at one time it appeared likely, also that there was no lymphatic affection throughout, and that the lingual ulcers had been noticed two or three times previously after biting during sleep without any untoward result.