subject farther, and, among other things, resolved to try for the internal os uteri the treatment used for dilating the male urethra—the daily passing of ordinary male urethral bougies slightly modified, which are not allowed to remain, and whose size is day by day increased. This treatment I described in the *Edinburgh Medical Journal* for May, 1872. I have found that the striking good results already mentioned are, at least often, attained; and this, without the occurrence of the striking bad results. I am aware of only one case in which any evil result followed this method of gradual dilatation. In it there was a slight temporary attack of adhesive perimetritis; and I believe that this was the result, not of the treatment as I would now conduct it, but of the use of more forcible dilatation than was necessary.

Future investigations may enable us to discover some class of cases in which the older modes of dilatation are to be preferred. They may also change our views as to the utility of both older and newer.

I resort to dilatation in a virgin rarely, and with extreme reluctance, and only in very severe cases.

TWO CASES OF SACCHARINE DIABETES TREATED WITH LACTIC ACID.*

By JOHN W. OGLE, M.D., F.R.C.P.,

Physician to St. George's Hospital.

THE following two cases of diabetes out of several† in which lactic acid alone, as a remedy, was administered in accordance with the suggestion of Cantani, were selected as presenting very favourable conditions for its employment. Both the cases were uncomplicated. The patients—one a male, the other a female—were at about the same period of life, and both came under medical care on the same day. The cases were especially watched, with a view of detecting indications of some lesion of the nervous system as a cause of the diabetic state, and of observing not only the supposed curative effects of the lactic acid, but also its alleged action in producing “rheumatic” symptoms. In both cases meat, with non-starchy food, gluten-bread, etc., were given for several days prior to the administration of the acid; and in both cases the lactic acid was increased until four drachms were taken in the day, and this was persisted in for several weeks. It will be seen that in one instance (Case II) a decided diminution of the amount of urine, without increase of its specific gravity, followed the use of the remedy. In both cases, flesh and strength were lost. In describing the cases, I have given in a tabular form a general view of the amount of the urine passed, of its specific gravity, also of the weight of the patient from time to time, and, on several occasions, of the temperature of the body.

CASE I.—Alfred S., aged 20, a healthy looking man, with florid complexion, but slender in frame, was admitted into St. George's hospital on March 20th, 1872. He stated that as long as he could remember he had had a large appetite, and been troubled with thirst. About eighteen months before admission, he had become very exhausted and unable to work; of late he had gained flesh. He had never had any blow or injury, and never fallen into venereal excesses, direct or indirect. He was not aware that any of his family had suffered from his form of illness.

On admission, the skin was dry, the breath had a very sweet and ethereal odour, and the mucous membrane of the tongue and mouth generally was dry and “clammy”. The urine was free from albumen, but contained much sugar, and its specific gravity was 1034. His weight was 8st. 5lb. (in his boots). The quantity and specific gravity of the urine were daily registered, and also the weight from time to time, as will be seen in the table appended. There was no affection of the movements of any of the muscles of the body, or interference with general sensibility or special senses; and the uvula, tongue, and palate, presented nothing unnatural. The eyes were hypermetropic to seven inches. The patient was put on mutton-chop, with gluten-bread, greens, and milk; subsequently beefsteak. No fermented fluid was given. For some days after admission, no medicines were administered; and on the 25th, it was reported that the patient was a little stronger, and that he had no thirst, but complained of a sweet taste in the mouth.

On the 1st April, he began to take lactic acid in twenty-grain doses three times a day, and this was increased gradually; on the 5th, to forty grains; on the 8th, to fifty-five grains; on the 10th, to sixty grains, three times a day. On the 15th, he began to take two-drachm doses in the day in water as a drink; and on the 20th, three drachms. On the 6th, he commenced taking half an ounce in the course of the

day; about this time he began to suffer from constipation, his general health remaining the same. Calomel, senna, and castor-oil, with oil and turpentine injections, were adopted, and cold douching of the abdomen was ordered. Sometimes the bowels were not open for several days continuously. At one time only was the lactic acid discontinued, and that was for a week, when the bowels were so constipated. It was resumed May 21st, and continued until June 10th—i.e., twenty days—when opium in half-grain doses was given every six hours. No improvement appeared to result from the opium; and the patient left the hospital subsequently.

The following table shows the daily amount and specific gravity of the urine.

Urine.		Urine.	Urine.		Urine.
Quantity.		Sp. gr.	Quantity.		Sp. gr.
March 22.....	128 ounces	1034	April 8.....	163 ounces.	1036
“ 23.....	128 “	1034	“ 9.....	196 “	1036
“ 24.....	144 “	1030	“ 11.....	106 “	1032
“ 25.....	136 “	1036	“ 22.....	150 “	1034
“ 26.....	144 “	1036	“ 23.....	130 “	1032
“ 27.....	156 “	1034	“ 24.....	100 “	1037
“ 28.....	148 “	1036	“ 25.....	134 “	1036
“ 29.....	96 “	1036	“ 26.....	120 “	1036
“ 30.....	140 “	1034	“ 27.....	106 “	1040
“ 31.....	144 “	1034	“ 28.....	118 “	1039
April 1.....	132 “	1034	“ 29.....	112 “	1039
“ 2.....	144 “	1034	“ 30.....	96 “	1040
“ 3.....	148 “	1034	May 1.....	96 “	1038
“ 4.....	144 “	1034	“ 2.....	106 “	1038
“ 5.....	144 “	1034	“ 3.....	92 “	1040

		Weight.				Weight.	
		St.	lb.			St.	lb.
March 22	..	8	5	April 22	..	7	13
“ 24	..	8	2	“ 26	..	7	10
April 11	..	7	5½	May 9	..	7	8

		Temperature.				Temperature.	
		A.M.	P.M.			A.M.	P.M.
April 10	..	—	102.3	April 14	..	99	100
“ 11	..	98.2	104	“ 15	..	99	98.4
“ 12	..	102	100.6	“ 16	..	97.4	98.4
“ 13	..	98	93				

REMARKS.—In this case, which was under care for seven weeks, no marked diminution of urine and no change in the specific gravity was noticed; but after the long use of the lactic acid, and possibly in consequence of it, great constipation came on, requiring active aperients. The weight fell from 8st. 5lbs. to 7st. 7lbs. The temperature was chiefly above the normal; on one occasion only being below, and then it was 97.4 deg. Fahr.; on one occasion it reached 102.8 deg. Fahr. No pain and no excess of perspiration existed during treatment.

CASE II.—Ellen D., aged 28, a lady's maid, was admitted into St. George's Hospital on March 20th, 1872. She had always enjoyed good health until about nine months previously to admission, when she began to complain of thirst, and to void much urine. At first she did not lose much flesh, but when the thirst became more intense she grew considerably thinner. She had been treated with quinine, opium, and bark (as she stated) in another hospital; and during the three months before admission she had lost much strength.

On admission, the patient was somewhat emaciated, and weighed 7st. 3lbs. The skin was dry, She had a reddish complexion, and had congenital coloboma of the iris of one eye, with corresponding gap in the choroid, as determined by the ophthalmoscope. The urine was acid, of the specific gravity of 1032, and contained a large amount of sugar. The odour of the breath was noticeably sweet. The tongue was clean, but reddened; the palate and uvula presented nothing remarkable; and the special senses and the muscular power and general sensibility were unaffected. The patient had never sustained any blow or injury. The pulse was regular, but rather quickened. No cough existed; but the respiratory murmur at the apices of both lungs was harsh.

On the day after admission, it was found that the amount of urine passed in twenty-four hours was 153 ounces, and that it was acid and free from albumen. She was then placed on a diet of mutton-chops, greens, milk, and eggs; and, later on, gluten-bread. She continued in much the same state generally; the bowels apt to be rather confined, the thirst very great, and the tongue red but clean. No medicine was given until April 1st, when lactic acid was administered in twenty-grain doses three times a day. The urine was almost daily measured as to quantity, its specific gravity was taken, and the patient was weighed from time to time, as will be seen in the table appended. On the 5th, the lactic acid was increased to forty grains; on the 8th, to sixty grains; on the 10th, the report was that thirst was much less and the strength greater; on the 12th, the acid was increased to seventy grains, thrice a day; on the 19th, she took three drachms daily in water; and on the 26th, the report was that she had gained strength decidedly.

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Birmingham, August 1872.

† Some of which have already been noticed in the medical journals.

The three drachms daily were continued up to May 6th, when she commenced taking half an ounce daily, which was persevered with until she left the hospital. For five or six weeks she also had a warm bath twice a week. At no time did she complain of any rheumatic or other pain during her time of treatment; and during her sojourn in the hospital no change of symptoms occurred, and no fresh one, such as cough, albumen in the urine, etc., came on. The temperature was registered night and morning, as before said, for several days, and as may be seen by the appended table. After a time the gluten-bread became very distasteful, even when tried in every possible mode, and its use had to be discontinued.

In spite of treatment and diet, the patient (though from time to time she varied in weight and strength), on the 8th of May, began decidedly to lose strength and spirits, and, at her own request, left the hospital eventually.

The following table contains the registration of the daily amount and specific gravity of the urine, and the occasional weight and temperature.

Urine.		Urine.		Urine.		Urine.	
Quantity.		Sp. gr.		Quantity.		Sp. gr.	
March 21.....	158 ounces.	1022	May 4.....	70 ounces.	—	—	—
" 22.....	178 "	1028	" 5.....	60 "	—	—	—
" 23.....	108 "	1028	" 6.....	66 "	—	—	—
" 24.....	126 "	1029	" 7.....	46 "	—	—	—
" 25.....	170 "	1028	" 8.....	68 "	—	—	—
" 26.....	160 "	1030	" 9.....	60 "	—	—	—
" 27.....	160 "	1027	" 10.....	64 "	1030	—	—
" 28.....	172 "	1030	" 11.....	60 "	1030	—	—
" 29.....	112 "	1028	" 12.....	60 "	—	—	—
" 30.....	128 "	1029	" 13.....	46 "	1029	—	—
" 31.....	96 "	1030	" 14.....	60 "	1028	—	—
April 1.....	90 "	1030	" 16.....	40 "	—	—	—
" 2.....	96 "	1030	" 17.....	60 "	1028	—	—
" 3.....	96 "	1028	" 18.....	60 "	1028	—	—
" 4.....	64 "	1028	" 19.....	60 "	—	—	—
" 5.....	60 "	1028	" 20.....	80 "	1029	—	—
" 13.....	100 "	1028	" 21.....	70 "	1030	—	—
" 14.....	84 "	1030	" 22.....	52 "	—	—	—
" 15.....	88 "	1032	" 23.....	70 "	—	—	—
" 16.....	72 "	1030	" 24.....	60 "	1022	—	—
" 17.....	70 "	1029	" 25.....	40 "	—	—	—
" 18.....	76 "	1030	" 26.....	44 "	—	—	—
" 19.....	64 "	1032	" 27.....	70 "	1029	—	—
" 20.....	80 "	1030	" 28.....	46 "	1030	—	—
" 21.....	74 "	1030	" 29.....	48 "	—	—	—
" 22.....	72 "	1030	" 30.....	46 "	—	—	—
" 23.....	70 "	1029	" 31.....	30 "	1022	—	—
" 24.....	80 "	1028	June 1.....	46 "	1020	—	—
" 25.....	60 "	1028	" 2.....	44 "	1026	—	—
" 26.....	60 "	1028	" 3.....	52 "	1027	—	—
" 27.....	60 "	1028	" 4.....	60 "	1028	—	—
" 28.....	60 "	1030	" 5.....	60 "	1028	—	—
" 29.....	48 "	1030	" 6.....	60 "	—	—	—
" 30.....	74 "	1028	" 7.....	60 "	1030	—	—
May 1.....	52 "	—	" 8.....	64 "	1028	—	—
" 2.....	50 "	—	" 9.....	46 "	—	—	—
" 3.....	50 "	—	" 10.....	54 "	—	—	—

Weight.

St. lb. oz.		St. lb. oz.	
March 21	7 3 0	May 1	6 10 4
" 28	7 2 10	" 9	6 13 0
April 4	7 0 4	" 16	6 10 12
" 11	7 0 4	" 23	6 10 12
" 17	7 0 0	June 6	6 8 8
" 25	6 13 0		

Temperature.

A.M.		P.M.		A.M.		P.M.	
April 10	98.4	97.6	May 8	98	97	97.4	97.6
" 11	97.6	97	" 9	97	97	97.4	97.6
" 12	99	97.6	" 10	97.6	97.6	97.4	97.6
" 13	97	97	" 11	98	97.4	97.6	97.6
" 14	96.6	97	" 12	97	97.6	97.6	97.6
" 15	97.2	—	" 13	98	98	98	98
May 6	97	98	" 14	98.4	—	—	—
" 7	98	98					

REMARKS.—In this case, which was under treatment for eleven weeks before the lactic acid was given, the urine ranged in quantity between 112 and 178 ounces a day; after the use of the acid, the quantity quickly diminished, and throughout its use fluctuated between 40 and 70 ounces a day, on one occasion being as low as 30 ounces. During all this period the specific gravity remained much the same as when the patient came to the hospital. The weight fell from 7st. 3lbs. to 6st. 8lbs. The temperature was almost always below the normal, being for the most part below 98 deg. Fahr. Neither the morning nor the evening temperature was uniformly above or below the other. In this case, it is to be observed that no rheumatic or other pains, and no noticeable perspiration, attended the use of the acid. The hay-like or sweet-smelling odour of the breath existed as in the former case.

In neither Case I or II was there any indication of interference with, or affection of, the nervous system; power of movement of the entire

muscular system, and sensibility, both general and of particular organs, being unaffected. In neither case was there albumen or excess of uric in the urine; and in neither was there any decided lung-mischief, though in Case II there was a degree of harshness of respiration.

As regards the results of treatment, it did not appear that in these cases any real benefit arose from the administration of the lactic acid.

METHYLENE ETHER AS AN ANÆSTHETIC.*

By LAWSON TAIT, F.R.C.S., Surgeon to the Hospital for Women, Birmingham.

By the introduction of this new anæsthetic, I feel sure that the days of chloroform as an anæsthetic for any but obstetric operations are numbered. The new substance has the following advantages over chloroform. Its action is much more rapid, and is entirely free from the muscular and cerebral excitement often seen in the use of chloroform; the quantity used is less; and sickness after its use is most exceptional, the recovery from the anæsthesia being extremely rapid and complete. Over sulphuric ether it has the advantage, that it is very pleasant to take, and that a tenth or twelfth of the quantity is sufficient.

I have used it about thirty times, and in only one instance was there any sickness, and in that case the lady had just before the examination been partaking freely of underdone mutton.

I have performed the following operations under its influence within the last six weeks, and in no instance has there been any sickness due to the methylene ether. A simple ovariectomy, in which only three drachms of ether was used; successful. Removal of both ovaries, in which the amount used is uncertain, but was probably about four drachms; successful. Removal of fundus uteri and both ovaries; a long and tedious operation, in which about two ounces of the ether was used, and in which no bad symptom has yet appeared (fourth day). This patient was sick some hours after the operation, but that was due to morphia. A long tedious operation for retained menstruation, in which seven drachms were used; successful. I have placed this patient under the influence of the ether eleven times, and she has never been sick. This repeated administration is for the passage of the finger up to the cervix, and the whole process, including the complete recovery from profound anæsthesia, never takes ten minutes. Removal of a large fibroid, and, in the practice of my colleague, Mr. Ross Jordan, the removal of the fœtus from the broad ligament successfully, together with several minor operations, and its administration for purposes of uterine or vesical examination, complete my experience of this new anæsthetic; and I shall use no other for surgical work until I obtain some disastrous result, a misfortune that at present seems more unlikely than by the use of either ordinary ether or chloroform. I may add that its use is more economical than that of either ether or chloroform.

ON CANINE MADNESS: WHEN COMMUNICABLE AND WHEN NON-COMMUNICABLE TO MAN.

By E. P. PHILPOTS, M.D., F.R.G.S., etc., Poole, Dorset.

It is often painful to witness the alarm occasioned by the bite of a dog, especially if the biting dog be "mad." Vague ideas, however, appear to prevail as to what a "mad dog" really is. It is generally supposed that only one kind of madness prevails amongst dogs, rats, cats, etc.; but I am prepared to show that this supposition is false; for, as mankind suffers from madness in more forms than one, so do the lower animals.

My observations having been limited to dogs, I must confine my remarks to them. There are two forms of dog-madness easily distinguishable from each other: the one communicable, and the other non-communicable to man. These two forms are named respectively hydrophobia, and distemper-madness. A person bitten by a hydrophobic dog is more or less certain of contagion; and, as sure as the disease is contracted either by man or by dog, so sure must death ensue from it. With regard to distemper-madness, the case is quite different. A person bitten by a dog that has this disease suffers merely from the local effects of the bite, which effects are, of course, in proportion to the severity of the bite, or simple lacerated wound, as it may be termed; the dog also, as a rule, recovers.

To enable medical men to diagnose the amount of danger in which their patients may be when bitten by dogs reported "mad," I have

* Read before the Birmingham and Midland Counties Branch.