

ral, and his bowels regularly open. His urine continued perfectly natural, and, in general; did not exceed a quart in twenty-four hours. Of this urine, which was of the ordinary taste and smell, nine ounces were evaporated, and yielded of a brown and pungently saline bitterish-tasted matter, without tenacity, three drams and twenty grains, a product excessively different from the saccharine extract resembling molasses, which his urine yielded in October. The product now obtained was very nearly the same, both in quantity and quality, as Dr Rollo obtained from his own urine, which, he had every reason to believe, was in the healthy state.

About the middle of March, Captain Meredith continuing in a state of health, was ordered on active service; to which he very readily assented, being satisfied that his health now enabled him to execute the duties of his station.

The second case which Dr Rollo has here very minutely detailed, but into the particulars of which we cannot propose to enter,

is that of a general officer in the 57th year of his age, with whom the urinary discharge amounted to ten or twelve pints in the twenty-four hours; and, while the urine had a very sweet taste, he was at the same time subjected to the other common symptoms of diabetes. After his disease had been of at least three years standing, and after recourse had been had to the assistance of several eminent physicians, without benefit, he came under Dr Rollo's care, in the beginning of January 1797.

Nearly the same plan of treatment, particularly with respect to the diet of animal food, was here directed, as in the case of Captain Meredith. In a very short time, a remarkable change for the better was produced. His thirst was diminished, and his urine rarely exceeded two, three, or at the utmost four pints, in twenty-four hours, being at the same time of the natural sensible qualities. In this way he continued to the end of February, gradually recovering flesh and strength. He now resolved on returning to his residence at Portsmouth. He had very great impatience under restriction.

But on parting from Dr Rollo, he was told, that, for preventing the return of his disease, every thing depended on himself; and he acknowledged the truth of the observation.

He bore his journey very well, and arrived at Portsmouth on the 27th of February. But having eaten something improper on the road the day before, he was attacked with a bowel-complaint. On the 6th of March he had a return of his bowel-complaint, from eating beet-root. On the 9th he had the sanction of a physician to eat what he pleased, and to drink wine. The disease was soon reproduced, for his urine became sweet, and was increased in quantity, with a return of thirst and feverishness. Yet this case, Dr Rollo justly observes, adds strength to the conclusions derived from the former case.

From these two cases Dr Rollo draws some general inferences. He concludes,

1. That the diabetes mellitus is a disease of the stomach, proceeding from some morbid changes in the natural powers of digestion and assimilation.

2. That the kidneys and other parts of  
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the system, as the head and skin, are affected secondarily, and generally by sympathy, as well as by a peculiar stimulus.

3. That the stomach-affection consists in an increased action and secretion, with viti-  
ation of the gastric fluid, and, probably, on  
too active a state of the lacteal absorbents.

4. That the cure of the disease is accom-  
plished by regimen, and medicines prevent-  
ing the formation of sugar, and diminishing  
the increased action of the stomach.

5. That confinement, an entire absti-  
nence from every species of vegetable mat-  
ter, a diet solely of animal food, with emetics,  
hepatifed ammonia, and narcotics, compre-  
hend the principal means to be employed.

6. That the success of the treatment in a  
great measure establishes the five preceding  
inferences.

7. That the saccharine matter of the dis-  
ease is formed in the stomach, and chiefly  
from vegetable matter, as has been shewn  
by the immediate effects produced by the  
abstinence from vegetable matter, and the  
use of animal food solely.

8. That acescency is predominant in dia-

betic stomachs, which continues even some time after the entire abstinence from vegetable matter, and after the formation of sugar; and that while such acescency remains, the disposition to the disease may be supposed to continue.

9. That the saccharine matter may be removed in three days, and, by avoiding vegetable matter, will not again be reproduced; but we are not yet able to state accurately, when the disease, and the disposition to it, can be finally removed.

10. That there are two circumstances to be considered in this disease, which we may separate in the progress of the treatment. As it has been shewn, that though the formation of sugar was prevented, yet the increased action of the stomach remained, and maintained the defect of assimilation, which prevented nutrition. Hence two objects occur in the cure; for it is not yet determined, whether the preventing the formation of sugar, by an entire abstinence from vegetable matter, and the use of animal food, with fats, if properly persevered in, might not ultimately comprehend the other, namely,  
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the removal of the morbid action of the stomach.

11. That the lungs and skin have no connection with the production of the disease.

12. That the quantity of urine is probably in proportion to the quantity of fluids taken in, and has but little dependence on absorption of fluids, from the surface of either skin or lungs.

13. That though the disease has been shewn to consist in an increased morbid action of the stomach, and probably too great a secretion, with vitiation of the gastric fluid; yet the peculiar or specific condition of either, as forming the disease, is acknowledged to lie in obscurity, and must remain so till the physiology of healthful digestion be properly explained and established.

14. That the first case had only been of about seven or eight months duration when the treatment commenced; but the second case had been upwards of three years continuance. The age of the one was thirty-four; of the other, fifty-seven;

circumstances which constituted material differences, though they seemed not to create corresponding difficulties in the treatment, so far as the direct removal of the complaint was concerned. They may however retard, in the one instance, the entire restoration of health.

15. That, in both cases, deviations occurred in the management, and were respectively followed by reproductions of the disease, and, though disadvantageous to the patients, have confirmed our views of its nature and treatment.

16. And, lastly, That from both cases we may warrant this general conclusion, that the diabetes mellitus is so far understood as to be successfully cured.

To these histories and observations, Dr Rollo has subjoined some remarks respecting the diabetes mellitus, which have been communicated to him by different correspondents, since the dispersion of his notes on the case of Captain Meredith. With regard to the causes of the disease, he observes, that from Dr Falconer's letter it appears, that one case was produced by excessive indulgence

dulgence in spruce-beer; that in one patient of Dr Cleghorn's, the disease seemed to have arisen from hard work when recovering from a fever, and in another from his being much addicted to the use of large quantities of sugar; and that the patient whose case is related by Dr Gerard, had been subject to pyrosis, and an excessive discharge under the form of perspiration, previous to the attack of diabetes.

With regard to the nature of the disease, Dr Rollo observes, that the appearances found by Dr Baillie, on dissection, an account of which will probably soon be published, may have been sequelæ of the disease. Mr Abernethy, he remarks, found the serum of the blood in diabetes to be turbid; and observed, that sugar taken into the stomach increased the saccharine matter in the urine.

With regard to the treatment, Dr Rollo informs us, that in one case of diabetes mellitus, Dr Duncan found fat meats serviceable; that Dr Falconer recommends mephitic alkaline water; that Dr Beddoes mentions a case where Bristol water cured

the disease; but that Dr Currie, who has seen several cases of the disease, never saw one of these cured in which the urine was sweet.

The case of James Walker, treated in the Royal Infirmary of Edinburgh, by Dr Hope, shews, according to Dr Rollo, the good effects of animal food. The treatment in this manner was begun on the 29th of December, when the daily quantity of clear urine of a sweet taste amounted to thirteen pounds. On the 31st of the month, two days only after the commencement of this treatment, the quantity of urine was reduced to five pounds, and it had acquired a strong urinous smell. The two cases treated at Glasgow, by Dr Cleghorn, shew also the good effects of a diet consisting entirely of animal food; and prove also the influence of commotion in the bowels on the quantity of urine. But the most striking case, Dr Rollo observes, is that related by Dr Gerard of Liverpool, from which it appears, that in diabetes there is no absorption of fluids by the skin, and that animal food alone, if duly persevered in, may cure the  
disease,

disease, though such perseverance be only of a very limited duration.

Dr Rollo concludes his remarks on diabetes, by observing, that hepatifed ammonia appeared to him to be a very powerful medicine. But it must, he tells us, be prepared according to Mr Cruickshanks's method. The ammonia must be pure, and completely saturated with the hepatic gas. To produce its narcotic effects, full and sudden doses of it must be given; but these require judgement, and an acquaintance with the exhibition of the medicine.

It should not be mixed up in draughts, or in any other form, as it is readily decomposed; but it should be dropt from the phial, at the time of using it, into a proper vehicle, and taken immediately. Distilled water is, he thinks, the best vehicle.