

nourishment. Glycogen is chiefly formed after a meal containing much carbohydrates; but even if only proteids are taken, the Liver will still manage to extract and store up some glycogen. If for any reason, such as occurs, for example, in certain diseases, the Liver is prevented from storing up glycogen, or permits too much of this material to be converted into sugar, the disease which is known as DIABETES occurs. The quantity of sugar which passes into the blood may become very great, and an excessive amount therefore is excreted by the kidneys. This is shown first by the high specific gravity of the Urine—usually more than 1030—and by boiling a little of the urine in a test tube with some Fehling's Solution, when the sugar precipitates the copper salt in the solution forming a thick yellow sediment. A patient suffering from diabetes may become extremely emaciated, although his appetite is sometimes voracious. The quantity of urine is almost invariably increased to a very large amount, many pints being sometimes passed during the twenty-four hours. The patient suffers from general ill-health; firstly because he is losing from his body a substance which is urgently required for its due support and nutrition; and secondly, because, in consequence, his nervous and muscular tissues, especially, become degenerated. So the diabetic is as a rule extremely weak and easily tired, and is subject to various nerve diseases of a severe type. He is liable to sudden death because of the weakness of his heart muscle, and if attacked by any illness, such, for example, as pneumonia, his power of repair is so enfeebled that he may die from a comparatively mild attack.

It is, again, very common for diabetic patients to suffer from boils, carbuncles and abscesses in different parts of the body, and these practically represent a form of blood poisoning; one abscess following another until in some cases the patient's strength is worn out with the continual discharge, and he dies of exhaustion. Or again, the diabetic may, apparently after a slight chill, contract what seems at first like an ordinary cold, with running from the eyes and nose; but instead of this passing off in a day or two, it is followed by drowsiness and then heavy sleep, gradually deepening into coma, and then death. It is important that the Nurse should remember these facts, because they emphasise the necessity of great care and many pre-

cautions in the attendance upon patients suffering from this disease. The treatment which is usually followed is largely dietetic; and in reference to this it may be briefly said that substances containing sugar or starch—which is convertible into sugar—are forbidden to the patient.

It is beyond the province of these Lectures to enter into the pathology of diseases, but it is an interesting fact that there is at present an active controversy in progress as to the particular part played by the Liver in the production of diabetes; and certain eminent observers contend that this organ does not really convert the stored-up glycogen into sugar at all. The practical result of this teaching would be that the diabetic patient might be permitted to have whatever diet he pleased, and this is a departure from the present treatment which requires considerable support before it will be generally adopted. Nurses who are in charge of such patients will find a most valuable series of recipes for different diabetic diets, in a book written by Mrs. Ernest Hart upon "Diet in Disease," and it would be well that they should consult this work, because these patients are sometimes most difficult to cater for—the appetite being most capricious and difficult to tempt.

There is a form of diabetes which occurs in gouty people, which is, fortunately, only of a temporary character—the sugar appearing and disappearing perhaps twice or thrice in the course of a month. Such patients do not appear to require any marked restrictions in their diet; in fact, as a rule, the sugar appears in the urine usually when the patient is somewhat out of health, and sometimes a few doses of medicine, or a change of air, is sufficient to bring about the disappearance of the sugar. It is therefore important for a Nurse in charge of a diabetic patient to carefully examine the urine at least every third day, and to note the amount of sugar present on each occasion. It is well to remember, also, that the diabetic should, in order to minimise their apparent liability to chills, wear flannel or woollen material next the skin. When the patient shows signs of drowsiness, benefit has often been obtained by placing the feet and legs in hot water and mustard, until the surface of the skin is thoroughly reddened. It is probable that the coryza in these cases, which so often precedes brain symptoms, may be due to over-distension of the blood-vessels of the head; and whether the ab-

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