CLIMACTERIC DIABETES.

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[From the transactions of the Clinical Society of the Hahnemann Hospital.]

Although among those who have diabetes the proportion of women to men is but one to three or four; and although the majority of women who have that disease have it before their thirtieth year, still there are cases which occur at the climacteric, and which, therefore, are deserving of our especial study. The occurrence of two such cases in my practice quite recently has suggested the propriety of directing attention to this among other subjects contained in my report.

The two principal forms of climacteric diabetes are that in which the disease is characterized by a vulvar eczema, or diabetic pruritus, and that in which the patient has chills of

a broken, demoralized type, with copious sweats and insomnia. On a former occasion* I have reported upon pruritus depending upon a saccharine condition of the secretions with a vulvar eruption, and now I will speak of the other variety.

The earliest mention of diabetes with colliquative sweats that I can find in my library is in Grave's *Clinical Lectures* (Vol. II, page 270); but neither Gardanne, Tilt, Puyo or Raciborski, in their works on the menopause speak of diabetes, with or without perspiration, as incident to that period. This is especially remarkable in the case of Gardanne, who has included everything else, not excepting the itch, in his list of contingent disorders.

The remarks of Durand-Fardel† concerning the perspiration in ordinary diabetes mellitus are worthy of translation. He says: "The diminution of the cutaneous activity should not, therefore, be considered as essential to the production of this disease. On the other hand, shall we admit, with Niemeyer, that the perspiration is lessened because the quantity of the urine is increased? I think not.

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"It is worthy of remark that the suppression of the perspiration is met with especially in recent cases, and profuse and abundant sweating in cases of much longer duration. Indeed, in nineteen cases in which the perspiration had been abolished, eleven of them had not exceeded a year's duration; while in forty-eight cases with copious sweating, sixteen only dated from less than one year, and thirty-two had passed that limit, fifteen of them having existed from five to fifteen years. The most marked cases of dryness of the skin dated only from a few months."

These general facts are endorsed by Bouchardat‡ and

* See Jousset's Clinical Medicine, *note* to page 325.

† *Traite clinique et therapeutique du diabete*, page 36.

‡ *De la glycosurie on diabete sucre, son traitement hygienique*, Paris, 1875, pp. 550.

others; and they help to explain the sub-normal temperature of confirmed diabetes, observed and remarked upon by Griesinger, Rosenstein, Vogel, and Jaccoud. Even when diabetes is complicated with tuberculosis, which is a condition which is very apt to be attended by free perspiration, the temperature may be below the normal standard.

The class of women who are liable to the form of climacteric diabetes to which I refer are those who, at the change of life, find themselves becoming fleshy and obese, with a decided increase of omental fat, enlargement of the abdomen and the breasts, and who, consequently, sometimes fancy themselves pregnant.*

The "flushings" are severe, with such a determination of the blood to the head and sense of suffocation that they must be fanned, or have the windows thrown open. These "spells," which sometimes recur very often, are followed by a copious sweat, and this in turn is succeeded by a chill. It is the persistence and frequency of this peculiar paroxysm, consisting of heat, sweat and chill in rotation and its refusal to yield to ordinary measures, that will suggest the diabetic complication. In a case brought me by Dr. A. K. Johnson, late of Greene, Iowa, the patient had had from eight to twelve of these paroxysms every night, and as many more each day for several years.

Sometimes the effect of the mellituria is a sudden arrest of the menses, with a serious re-action upon the nervous and the vascular system; but more often it develops an intractable and otherwise unaccountable menorrhagia.

In confirmation of the view that those cases of glycosuria which are accompanied by free perspiration are most often chronic, these cases of climacteric diabetes will have already passed the stage in which the appetite and thirst are pronounced. They generally, but not always, gain flesh instead

* Durand-Fardel (*Traite Practique des Maladies Chroniques, tome premier,* page 181), says that almost always when a diabetic patient sweats profusely that patient is obese.

of losing it. But there is one symptom that is almost always present, and that is insomnia. When a woman who has reached the climacteric without having had any local trouble with the uterus or the ovaries, and who even now does not complain of any intra-pelvic discomfort, finds herself unable to sleep, and subject to the paroxysms above described, the urine should be tested for sugar. It is not enough for her to claim that that secretion is all right, for she may be misled by the identical physical characters that would make you suspicious.

If the mouth is parched, and there is a tendency to eruptions in the form of psoriasis, eczema, or a herpes zoster especially; to local neuralgia, or even to a temporary paralysis, or to glandular or a ciliary blepharitis, to which the patient has not hitherto been subject, the symptoms point to a probability of a co-existent glycosuria. If the teeth decay very rapidly and suddenly, with alveolar periostitis, or if the temper is changed, and she becomes very irritable and moody, dissatisfied or hypochondriacal, with irregular nerve-storms and enfeeblement of the intellectual faculties, we may recognize the same condition of things. Sometimes these hints are more than confirmed by the failure of the usual remedies to bring relief. My colleague, Dr. Vilas, will be able to tell us whether the sugar in the blood of women at this time of life is especially apt to produce those osmotic changes in the crystalline lens which result in double cataract, with or without a destruction of its fibres.

The members of this society will doubtless recall the remarkable paper on *physiological glycosuria* presented to the French Academy by Blot,* in which he states that in forty-five lying-in women, without exception, and in all the wet-nurses whom he examined, he found sugar to be present in the urine. He also found it to exist normally, but in dimin-

* *De la glycosurie physiologique des femmes en couches des nourrices etc.*, Paris, 1856.

ished proportion, and at intervals, in the urine of those pregnant women whose mammary sympathies were considerably excited, while it was lacking altogether when the breasts were flaccid and dormant. In the case of nursing women he satisfied himself that the proportion of sugar in the urine was greatest where the lacteal function was most active, the more abundant the flow of milk the greater the amount of sugar, and *vice versâ*. Weaning the child caused it to diminish and to disappear; and so likewise did the occurrence of an acute puerperal disease, after which, if the nursing was resumed, the urine again became saccharine. These views have been substantially confirmed by Gubler, De Sinéty and others.

Whether the critical change at the menopause has any such physiological accompaniment as glycosuria, or if its occurrence is an incidental, waste-pipe affair, nobody has told us, and I am not prepared to say. Nor do we know what share of, or who among our patients at a certain age are likely to have it. It is quite as impossible to decide whether in the few cases in which we find a climacteric diabetes, it has developed from a condition that was normal at the outset, but which, through oversight or neglect, has drifted into something serious.

What I do insist upon from a clinical standpoint is that there are women who at the change of life become the victims of a form of this disease which is masked by symptoms that are usually ascribed to an arrest of menstruation, but which is amenable to treatment, provided it is not complicated with incurable nervous disorders or with tuberculosis.

With respect to climacteric women especially, I can fully indorse the remarks of Prof. Pepper in a clinical lecture on saccharine diabetes when he says:*

"I have repeatedly found sugar in the urine, when I have

* *The Medical Record* for January 5, 1884, page 10.

made the examination only because I was in the habit of so doing, or because I was searching for the cause of an otherwise inexplicable debility, the patient having complained of no symptom of saccharine diabetes."

DISCUSSION.—DR. G. A. HALL—I have a case which comes under this head. A lady, then passing through the climacteric, came to me last March to be treated for ranula. By means of local applications and constitutional treatment, I succeeded pretty well in curing her of it, but still she seemed uncomfortable and out of sorts. One day when I had plenty of leisure, I questioned and examined her closely. I found her suffering very much from hot flashes, but chiefly from a terrible pruritus vulvæ; her skin was dry and had a peculiar appearance, resembling psoriasis. I found the labia very much changed in appearance from what they ought to be. They looked like leather chalked over, as near as I can describe them; they were not tender, but the slightest touch produced an itching so intolerable that she could not keep still a second. I suspected the kidneys were at fault. At my request she measured the quantity of urine passed in twenty-four hours, and brought me a specimen of it. The amount was three and one-half quarts, and it contained a large per cent. of sugar, although in this last respect it varied from time to time; Dr. Ludlam's report throws some light on this case, and when I have finished up with the ranula, I shall send her to him to complete the cure.

Her menstrual flow is ceasing gradually; she has had but one slight menstruation since last March, when the case came under my observation. I had one case similar to this before, about the time that Dr. Ludlam presented a paper on the same subject, but I must confess that until my attention was thus drawn to it by him, I had never coupled this condition with the climacteric period.

DR. L. G. BEDELL.—The paper has called to my mind cases that I have had, that probably were climacteric diabetes, though at the time I did not recognize any connection

between the two. In cases of real diabetes, *phos. acid* has served me best as a remedy, but I depended largely on diet as a means of cure. I think the diabetic flour manufactured at Watertown, N. Y., very valuable.

DR. A. K. CRAWFORD.—I should like to give Dr. Burt a hint in regard to remedies, since he is so fond of experimenting in that line. It comes from a prescription that an old-school physician recently told me he had cured a case of diabetes with. The urine was most certainly diabetic, for I examined it myself and found it loaded with sugar, and upon again examining it after the use of the remedy, I found it entirely free from sugar. The prescription he made was *potassium bromide* and *hyoscyamus* in moderately small doses, and in ten days there was not a trace of sugar in the urine. As the diabetic condition so often springs from a nervous origin, and as we know that the *bromides* (some of them) have a marked influence on the cerebral centres, we have surely a physiological basis for such a prescription.

DR. W. H. BURT.—The *bromide of potassium* is one of my favorite remedies in diabetes, but I have never tried *hyoscyamus*. I have lately read in one of our journals of several cases cured with the *arsenite of bromine*. If any one here has had any experience with this remedy, let us hear about it.

DR. R. LUDLAM.—I suppose there is no one specific for the diabetic condition. *Arsenic* has caused it and cured it; some of the *bromides* have caused and cured it; there are more than a dozen drugs in the Materia Medica that have done the same.

In mild cases I have more confidence in the milk diet than any thing else. In one case there was a fall of twenty degrees in the specific gravity of the urine in four or five days under the milk diet, without a drop of medicine. Then we put her on *nitrate of uranium* and she got on very well indeed.

I know that the presence of sugar in the urine is not a

more certain sign of diabetes than albuminuria is of Bright's disease. There is a wider difference between them than there is between obstetrical and surgical anæsthesia. Possibly a physiological glycosuria at the climacteric may have developed into confirmed diabetes when the flush, sweat and chill are very frequent and pronounced, and when these symptoms co-exist with insomnia, excessive nervousness and marked evidence of sugar in the urine.

It is more than possible that many of those women who pass into a rapid decline directly the monthly flow has ceased do really suffer and die from diabetic phthisis, although it may not have been recognized or even thought of by the attending physician. I have seen several well-marked examples of diabetes at puberty and resulting in amenorrhœa, with a strong tendency to pulmonary tuberculosis.