Emotional movements of the face are less affected than voluntary movements.

Lesions of the seventh nerve below the pons cause a peripheral paralysis of the whole of that side of the face and if the lesion is above the chorda tympani branch, taste will be unaffected.

## A CASE OF DIABETES MELLITUS IN ASSOCIATION WITH HYPERTHYROIDISM

E. M. TOMLINSON.

*Mrs. V.*, aged 48, housewife. Admitted to Ward 23 on September 5th, 1936.

*Previous Health*—Has been ill for 13 years (see below).

*Habits*—Diet, eats anything. Sleep, fair. Weight, 120 lbs. on admission; 151 lbs in 1935.

*Family History*—Mother has asthma.

*Major Complaints*—

1. Pain on passing water.
2. Lump in neck.
3. Choking feeling.
4. Pain in stomach.

*History of present condition*—

Up to 13 years ago, 1923, the patient was quite well. At this time she had a child and, after his birth, she was troubled with a burning pain on passing water. She also had a sick feeling in her abdomen before and after her periods, but it had no relation to meals. She was told by a doctor that it was due to "womb trouble." She was curetted but there was no change in her symptoms.

Four years later, 1927, she started having pain in her left side; it lasted five minutes and then disappeared; it comes on only if she works hard, it has no relation to meals and has not been associated with vomiting.

The patient first noticed the swelling in her neck 27 years ago, at the age of 21, following the birth of her first child. She has had seven children and after childbirth the swelling has increased in size.

Eight years ago, 1928, she began to have a choking feeling in her throat and was unable to lie down. At this time she had X-ray treatment to her neck for two months and, although it did not decrease in size, the choking feeling went away. She was then put on iodine for about six months, on and off.

On May, 1935, she was told she had sugar in her urine and was on insulin 30 units daily until January, 1936. Iodine treatment was given again for six months, last year.

There was no change in her condition until July 1936, when she fainted in town, losing consciousness, and was told that her heart was enlarged due to the sugar.

She was in bed one month and, on getting up, noticed her feet were swollen after her first day up. At the present time, her feet swell up if she walks a lot. She has had palpitation since July, and gives a history of failing exercise tolerance, and increased breathlessness on exertion. She sleeps with four pillows on account of the swelling of her neck.

The patient prefers winter to summer. Her hair has been falling out for years; her skin has become dry.

During the last few years she has noticed that she is irritable and easily upset by trivialities.

Her voice has been husky since July, 1936.

She gives a history of boils, pruritis vulvae and whitlows for 13 years.

*Condition on examination*—

The patient is an emaciated, elderly woman.

*Neck*—

Bilateral swelling of thyroid, nodular, with two calcified nodules, moves on swallowing; not attached to superficial or deep structures; pulsation present.

*Cardiovascular system*—

Heart enlarged, ratio 5¼ to 9¼ by X-ray; 2 normal sounds, rhythm regular. B.P. 148/90. Pulse about 96.

*Eyes*—

No exophthalmos, no lid lag, wrinkling of forehead and convergence present.

*Special investigations*—

7/9/1936—Blood urea, 31 mg. per 100cc.

7/9/1936—Blood sugar curve, 0.13%, 0.15%, 0.2%, 0.18%, 0.13%. Sugar present in specimen of urine.

9/9/1936—B.M.R., plus 46%. Pulse 114.

8/9/1936—X-ray chest, peribronchial fibrosis throughout both lung fields; heart enlarged, ratio 5¼ to 9¼.

*Diagnosis*—

Diabetes and hyperthyroidism.

*Discussion*—

In cases of hyperthyroidism there are often signs of a disturbance in carbohydrate metabolism, resulting in glycosuria and sometimes

in a raised blood sugar curve, although the fasting blood sugar may be normal.

When is diabetes mellitus diagnosed in association with hyperthyroidism?

John, in his discussion on this subject, says that no single blood sugar curve is of value in the diagnosis of diabetes. "The diagnosis of diabetes in hyperthyroidism can only be made after long study of the patient, determining the persistence of defective carbohydrate metabolism." Joslin and Lahey consider "a true diabetic glycosuric as one who has at least some of the characteristic symptoms of diabetes, and shows hyperglycaemia above 0.13% before, or above 0.16% after a meal and with glycosuria varying with diet," but with this definition, there would be too many cures of diabetes following operation and so they "raised the standard for the diagnosis of diabetes in hyperthyroidism to a blood sugar of 0.15% fasting or 0.2% or more after meals, in addition to glycosuria."

A convenient definition of diabetes mellitus is, "that condition in which there is hyperglycaemia which is not transient, associated with glycosuria." The patient has a raised resting blood sugar, a rising blood sugar curve above normal limits, which falls slowly within three hours after taking the glucose.

Using this definition one may classify hyperthyroidism with glycosuria as:—

1. Those cases with a lowered renal threshold; *i.e.*, the resting blood sugar is normal, the blood sugar curve rises no higher than normal limits but glycosuria is present.
2. Those cases with a mild, true diabetes; the blood sugar curve is slightly above normal and the resting blood sugar raised; glycosuria is present.
3. Those cases with a severe, true diabetes, the resting curve is markedly raised and the glycosuria is heavy; there are other signs and symptoms of diabetes mellitus present.

Diabetes may occur with primary or secondary hyperthyroidism.

*Treatment—*

Insulin, though given in large quantities, has little effect in diminishing glycousuria.

Iodine treatment is of little benefit, and the patient's condition rapidly becomes worse. From the literature, it is apparent that the only treatment is surgical.

Careful pre-operative and post-operative treatment is essential for the success of the operation. Iodine, insulin and carbohydrate must be given before operation, and as soon as possible after it. Large quantities of saline and glucose are of value in averting post-operative crises, as diabetic coma and "thyroid storms."

Joslin and Lahey have found that the mortality rate has been lowered by doing two stage operations and more conservative operative approach if the mortality is to be kept low. As Dr. Lahey puts it: "The important warning I would like to utter to medical men, is that they should urge immediate surgery in cases of diabetes and hyperthyroidism."

"The complication of hyperthyroidism and diabetes is a serious one and will be attended with high mortality unless these cases are approached with care."

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## A CASE OF SYPHILIS OF THE STOMACH

MAX SEGAL and WERNER WEINBERG.

An unusual case was recently admitted to Ward 21 under Dr. Bloom. The features of this case were so interesting both from a diagnostic and clinical viewpoint, that a preliminary report was considered to be warranted.

The history is as follows:

*G. M.*, age 15, scholar, admitted 10/8/36.

*Complaint—*

(1) Pain in Stomach.
(2) Severe vomiting.
(3) Extreme loss of weight.

*History of present condition—*

Until 3 months before admission the patient was perfectly well and attended school normally Pains then suddenly commenced in the epigastrium on taking food of any nature, liquid or solid. This pain commenced 10-30 minutes after every meal, followed by severe vomiting. This vomiting was not preceded by any nausea. Gaseous eructations were frequent, but there was no flatulence. The pain was knife-like in character, did not radiate, was relieved by the vomiting, and