TRANSIENT MASSIVE ALBUMINURIA AFTER CHROMOCYSTOSCOPY IN A PSYCHO- NEUROTIC INDIVIDUAL

BY

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I have not succeeded in finding any account of a case in which cystoscopy or chromocystoscopy was followed by transient massive albuminuria as it was in the case reported below. But then the urine is not usually examined in this way twenty-four hours after a cystoscopy, and by another twenty-four hours the albuminuria had almost completely disappeared. I can find no published clinical or experimental support for my idea that the massive albuminuria represented an idiosyncratic reaction towards the intravenous injection of indigo-carmin. The non-appearance of the colour in the urine after the injection of indigo-carmin has usually been regarded as a bad sign, but presumably in the present case the indigo-carmin was excreted in the urine after having undergone transformation into a colourless substance. This need not have had any connexion with the subsequent transient massive albuminuria. I am much indebted to Mr. T. Dietzsch for his kindness in referring me to data about indigo-carmin.

One cannot help thinking of the massive albuminuria which has been observed occasionally after cerebral haemorrhage. J. Sabrazès and Ch. Massias in 1923 (abstract in the *Presse Médicale*, Paris, 1923, xxxi, 104) drew attention to such "massive" albuminuria, without tube-casts, in cases of cerebral haemorrhage. They found that in a young rabbit, when 2 to 3 c.cm. of its own blood was injected into its brain, albuminuria accompanied the resulting apoplectiform shock, the albumin in the urine reaching 4.6 per mille at the time of the animal's death, thirty hours afterwards. In connexion with the same subject one might also compare some of the phenomena of attacks of acute "angioneurotic oedema."

RECORD OF CASE

The patient, a well-nourished woman aged 26 years, was admitted to hospital on November 9th, 1933, on account of uncertain abdominal pains. For nearly ten years she had been troubled with frequent micturition during the day, but not (or much less) during the night. This pollakiuria had been supposed to be of psychoneurotic origin (in Germany) as early as 1925, but at that time there seems to have been evidence likewise of a *Bacillus coli* infection. Psycho-analytical treatment at Zürich and elsewhere is said to have had a beneficial result. In March, 1933, she commenced to complain of abdominal pains, and in September appendicectomy was performed for "chronic appendicitis"—but without relieving her main symptoms.

On November 9th, 1933, she was therefore admitted on the medical side of the German Hospital. Apart from somewhat vague abdominal pains and the pollakiuria, hardly anything abnormal could be discovered. By Roentgen-ray examination of the abdomen, two or three calcified lymph glands were evidenced. Nothing abnormal was found in the thorax. The urine (catheter specimen) showed a cloud of albumin, and the centrifuge sediment contained a few leucocytes and erythrocytes, but no tube-casts. Brachial blood pressure: 120/74 mm. Hg. Nothing abnormal by ophthalmoscopic examination. A Pirquet cuti-reaction gave a weakly positive reaction; as it does in most normal adults. Menstruation had commenced at 14 years of age, and had always been normal. There was a history of longevity on both sides of the family.

In order further to investigate the cause of the slight albuminuria and the source of the erythrocytes in the centrifuge sediment of the urine, a chromocystoscopy was kindly undertaken on November 14th by my colleague, Mr. A. Compton. It was, however, impossible to find the orifices

of the ureters, and therefore the ureters were not catheterized. The indigo-carmin (4 c.cm. of a 0.4 per cent. solution) injected intravenously was not observed to reappear in the urine. The mucous membrane of the urinary bladder was seen to be intensely congested, possibly as a reaction towards the irritation of the examination.

This cystoscopic examination (none had been previously made) was followed by some local pain, which, however, left her in two hours or so. But next morning (about twenty-four hours after the cystoscopy) her urine was found to be loaded with albumin (10 per mille by Esbach's tube), and, though it was not coloured with blood, the centrifuge sediment contained many erythrocytes and leucocytes; no tube-casts seen. A day later (November 16th) the urine showed only a thin "cloud" of albumin; there were a few leucocytes and a very few erythrocytes in the centrifuge sediment and (as before) no tube-casts. No culture of *Bacillus coli* could be obtained from the urine (November 22nd and on a previous occasion). In the hospital the pollakiuria was not accompanied by polyuria, and before she left (November 25th) the former was greatly diminished—possibly partly owing to her psychic condition having been entered into. Moreover, the patient altogether felt better.

DIABETES AND ULTRA-VIOLET IRRADIATION THERAPY

BY

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During the past twelve years reports have appeared in the literature regarding the beneficial effects of ultra-violet light irradiation on sugar tolerance and hyperglycaemia in diabetes.

Pincussen¹ found that irradiation produced definite improvement in a series of diabetic patients with regard to level of blood sugar and excretion of glucose and acetone. He gave no details of the clinical condition of the patients apart from the diagnosis of diabetes mellitus, but stated that those diabetics who had marked polyuria (hypophyseal diabetes) showed no improvement. Andersen² recorded a beneficial result in the treatment of one diabetic patient whose sugar tolerance increased from 24 to 96 grams of carbohydrate, and whose fasting blood sugar fell from 100 mg. per cent. to 70 mg. per cent. immediately after irradiation. Saidman³ has reported benefit from the use of ultra-violet irradiation in five patients, in two of whom a mild glycosuria completely disappeared. He considered that ultra-violet treatment was indicated in glycosuria associated with cutaneous manifestations, dental lesions, and malnutrition, and also in severe diabetes where insulin was necessary. Rothmann⁴ has given records of two diabetic patients treated with ultra-violet light. One with acne rosacea responded favourably, with disappearance of acetonuria and glycosuria (5.3 grams glucose daily) and a fall of fasting blood sugar from 183 to 120 mg. per cent. The other, who had generalized eczema, showed no improvement after ninety-five days, both blood sugar and glycosuria tending to increase. A patient of Rollier (quoted by Furniss⁵), aged 45 years, with benign diabetes mellitus of many years' standing and easily controlled by dieting, was able, after natural sunlight treatment, to live on ordinary hotel diet without glycosuria: after twenty-four hours without a sun-bath all the symptoms reappeared. J. Wilson,⁶ after a brief résumé of the literature, stated that all workers found decrease of glycosuria and acetonuria after ultra-violet irradiation of diabetic patients: he considered this treatment specially suitable for diabetes complicated by neuritis, carbuncles, and vasomotor and trophic disturbances. Rothmann⁷ also obtained good results in a case of diabetic xanthomatosis: in another diabetic with