in these cases are encouraging enough to induce me to make further trial of it, and it is possible that in cases of true pancreatic diabetes the benefit might be greater.

THE TREATMENT OF DIABETES BY PANCREATIC EXTRACTS.

By NEVILLE WOOD, M.R.C.P. LOND.,
Clinical Assistant Victoria Hospital for Children.

THIS plan, proposed in the BRITISH MEDICAL JOURNAL of January 7th, occurred to me early last year as worthy of a trial from certain theoretical considerations. I append a brief summary of two cases, in which the method was employed at my suggestion.

CASE I.—This case at the Chelsea Infirmary was kindly placed under the treatment by Mr. Moore. It was of the so-called pancreatic type. A boy, aged 13, whose father had recently died of diabetes, had suffered from symptoms of diabetes before beginning this treatment for six months. From January 1st, 1892, he was placed on diabetic diet, and was given first codeine, from which he received no benefit, and then morphine, under which he improved. The zymine treatment, with diet as before, was begun May 18th. His general condition was bad, appetite not ravenous, thirst great, weight 5 st. 10½ lbs., quantity of urine in twenty-four hours about 60 oz., sp. gr. 1036, sugar estimated at 6.5 grains per ounce. Zymine was given in increasing doses, with the subsequent addition of sodium bicarbonate, and finally pancreatin pills, coated with keratin, were substituted. A daily record of the amount and specific gravity of the urine was kept, and quantitative estimations of sugar were made with Fehling's solution. The treatment was continued till August 21st, when he left the infirmary. Unfortunately, owing to deception on the part of the patient, and dietetic indiscretions, which caused diarrhoea on more than one occasion, many of the observations are valueless, and, with the amount of comment necessary, would be out of place in this summary. What is certain is that his general condition vastly improved, his weight increased 7½ oz., and thirst diminished. During the first ten days of treatment the amount of urine in twenty-four hours averaged 78 oz., and for the last ten days before leaving it averaged 35 oz., while the specific gravity for the same periods averaged 1036 and 1027 respectively. The first reliable quantitative estimation of sugar made May 20th, gave 6.5 grains to the ounce, the last, made at the end of June, 4.5. The boy was readmitted November 5th, and is still in the infirmary. He is improving under opium, but has not reached the standard of last summer under the pancreatic treatment.

No definite deduction can be made from this case owing to the facts already mentioned, that he was improving at the time zymine was commenced, and the intractability of the patient, while the summer weather and the continuance of restricted diet were in his favour. Its value is also less because press of work prevented me from making a sufficient number of quantitative estimations towards the close of the case. Nevertheless, the improvement in general condition, and in some of the cardinal symptoms of the disease, while he was taking pancreatic preparations, compared with the periods under opium and the alkaloids, is perhaps worthy of record.

CASE II.—The observation of this case at St. George's Hospital was kindly permitted me by Dr. Cavafy. A woman, aged 24, who gave no family history of diabetes, had suffered from symptoms for about four months before beginning pancreatic treatment. Previously to this diabetic diet and codeine were given. Pancreatic treatment was commenced June 10th, 1892, and continued till she left the hospital on July 19th. The diet was not changed, and zymine, etc., was used as in the previous case. At the outset the general condition was that of debility, the amount of urine varied between 2,500 and 4,000 c.c., specific gravity about 1034, and the percentage of sugar 7. The general condition of the woman improved, and she gained 3 lbs. in weight, but she complained of increased thirst. The amount of urine remained about stationary, and while the specific gravity ranged rather lower, the percentage of sugar increased to 10. She went to the Convalescent Hospital at Wimbledon, and left there for her home September 21st, still further improved in her general condition. On September 26th she was readmitted at St. George's, rapidly fell into coma, and died on the 27th. The necropsy showed no notable lesion, and the pancreas is described as "not abnormal, soft like the rest of the body."

In this case, of the cardinal symptoms, diuresis was unchecked, while thirst and the excretion of sugar increased. The increase of weight is possibly attributable to the better assimilation of her food, perhaps of the freely supplied hydrocarbon element. The fall in specific gravity may perhaps be explained on a somewhat similar hypothesis.

From the observation of these two cases I have little hope that diabetes can be influenced by pancreatic preparations in the same way that myxœdema is by thyroid juice. A subsequent perusal of the interesting monograph on Pancreatic Diabetes by Dr. Thiroloix has inclined me to agree with that author that, while in some cases pancreatic lesion is a probable

factor, it is not the chief one, and we must look for the essential pathology in some part of the nervous system, perhaps in the great sympathetic ganglia of the abdomen.

A CASE OF MYXEDEMA TREATED WITH THYROID EXTRACT AND THYROID FEEDING.

By R. A. LUNDIE, M.A., M.B., C.M. EDIN.

THE patient, aged 54, represented in the accompanying photographs first came under my observation in July, 1891, when I found her suffering from all the chief symptoms of myxœdema—waxy, swollen features, thick, coarse skin, torpidity, low temperature, slow speech, etc., in a very marked degree. The

Fig. 1.—Case of Myxœdema when treatment was commenced.

disease appeared to have commenced about fourteen years before.

Treatment by subcutaneous injection of extract of sheep's thyroid was begun in October, 1891, in doses somewhat larger than those recommended by Dr. Murray.¹ For about six weeks no change was observed; but after that period improvement was rapid and satisfactory. But the injections had to be discontinued, first in consequence of diffused pains evidently connected with the treatment, and later on account of a series of abscesses resulting from the injections, probably, however, originating from an accidental abscess quite independent of them.

About five weeks without injections sufficed to show that the patient would speedily relapse. I determined, therefore—I must say with small hope of success—to administer the extract by the mouth, and have continued to do so since July, 1892. The patient is now (December, 1892) taking extract representing one-sixth sheep's thyroid twice weekly. The result has been most satisfactory; within a fortnight

¹ BRITISH MEDICAL JOURNAL, vol. ii, 1891, p. 796.