

subjects, and the more advanced the age the better the prognosis. I know of no disease in young subjects that is more grave. The ordinary length of life in young subjects afflicted with diabetes may be said to be about two years. In middle-aged or elderly persons the prospects, happily, are of a different nature. If they follow proper management they can keep the disease under. The unsatisfactory cases are in the young, the satisfactory cases in the elderly.

The age at which the disease is most common ranges between forty and sixty years. Preparatory to the meeting of the British Medical Association, a few years ago, I went through my case book and tabulated 1360 cases, and I found that the cases occurring between forty and sixty years of age made up fifty-six per cent. of the whole.

Sometimes the disease commences in mild form, and may run along for several years before it is recognized. You may say, What authority have you for making such an assertion? How do you know that the disease has run for some time without having been recognized? There is this way of knowing it: saccharine urine leaves white spots on articles of clothing, and in micturition the trousers are apt to get splashed. The "boots" at hotels are able to recognize diabetic guests. They find the spots on the legs of their trousers very difficult to brush out. I have had patients come to me who were able, when asked, to hunt up old trousers on which these spots were found, and could remember the annoyance occasioned by them for a long time before. Such are the grounds for being able to say that the disease may have existed for some time without having been recognized.

It runs in families to a considerable degree. I do not say that it is hereditary in the same way as gout and phthisis are, but it runs in some families in a striking manner. I was asked to see a patient suffering from diabetes, who belonged to a family of five, the eldest of whom was not more than eighteen or nineteen. The mother had died of diabetes and the grandmother had died also of the disease. One of the children was brought to me, as I have said, and sugar existed in the urine. I desired to have a specimen from each of the remaining children. In four of the five the urine was saccharine.

There is one point with reference to the disease to which I would like to call your especial attention, and ask you to give it the benefit of your own observation. It is only somewhat recently that my own attention has been fixed upon the matter, and the number of cases I find to be affected in the manner I am going to mention is striking. The remark does not apply to young subjects, but to persons beyond the middle period of life. I used to come across persons who complained of pain in the legs, put down as cases of gout or rheumatism; and I took it as simply coincidental to the diabetes, without anything important in it. But I so frequently met with it

that my attention became aroused, and now I find many subjects of diabetes beyond the middle period of life thus affected. There is also more or less ataxia. It is not exactly the pure form of ataxia that it is seen in locomotor ataxia, because I have noticed that these persons can stand, maintaining their balance fairly well with their eyes shut. Yet they walk with some difficulty. They cannot properly maintain their balance. They feel often compelled in walking to pull themselves together and make an effort to walk steadier, lest persons behind them may think they have been taking too much. This is what has occurred to me over and over again to hear.

Then, again, with this, there are usually associated some anæsthesia, and hyperæsthesia, and various forms of paræsthesia. Persons feel as though they were walking on pebbles. The flesh is tender, so that when the leg is grasped it gives pain. This comes oftener in the legs than in the upper extremity; sometimes, however, it affects the upper also. Then there is an aching of the bones. The patient complains of it especially at night, in bed. The condition appears to be due to peripheral neuritis.

*Treatment.*—In young subjects, all we can do is to endeavor to stay the disease for a time. You cannot possibly cure it. At an early stage of the disease in the young subject, you diet the patient—the sugar is removed, and the patient thinks he is cured. Sometimes you are called upon to treat a patient who has been brought to an extreme state of emaciation and weakness, by a sudden and severe invasion of the disease. Placed under proper treatment, the change appears like a resuscitation. He goes on getting better, his hopes are raised, and he thinks he is well. Unfortunately this is not the case. It is a progressive disease. It is a disease which seems to progress in the same way as progressive muscular atrophy or locomotor ataxia, but its advance is uneven. As it advances, the diet and other methods of treatment which succeeded in removing the sugar at first no longer do so; the patient now loses ground and becomes weaker and weaker. You are able at first to keep down the symptoms and the excessive flow of urine; but soon you lose your power to keep them down, and finally something occurs to throw your patient off his balance, and to lead up to diabetic coma, which is the ordinary mode of death in these cases.

It would be a hard and oppressive life to devote one's self only to the treatment of diabetes occurring in subjects. But the successes obtained in treating the disease in patients of a more advanced age compensate in a measure at least for the failure in young persons.

We first avoid feeding the disease, and whilst doing this endeavor to convert the wrong action of assimilation into a right one. I lay the greatest stress on diet. I do not think that we can get along in the management of these cases without strict attention to diet. There must, then, be the