logical groups, the pain fibres probably having the lowest and the touch fibres the highest representation in the somatic sensory nucleus of the trigeminal nerve.

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THE EMPLOYMENT OF DIABETICS

BY

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Diabetics still suffer great difficulties in their work and employment from the public misapprehension that they are necessarily invalids. However fit and healthy he or she may be under appropriate treatment, the patient with diabetes cannot enter any Governmental or similar service, is barred from all types of employment which are pensionable, and is liable to find himself discharged when his private employer knows of his disease. As a result, patients with diabetes must often hide their condition and miss necessary visits to our day clinics (we now have an evening clinic for them), as these might disclose the disease to their employers. Young diabetics entering industry are rarely accepted by an approved society, and can usually only get health insurance through the Post Office scheme, with its limited benefits. Many children, after winning scholarships for higher education, find that they cannot take them up because they suffer from diabetes. Altogether, many lose confidence from rebuffs in finding the type of work they wish to do and which they are most capable of doing well.

From experience with our hospital clinic we consider the above attitude quite unjustified, unfair, and a mere survival of pre-insulin days, when ill-health—that is, industrial inefficiency—and early death were the rule. Patients appeal to us and to the Diabetic Association, which concerns itself with such difficulties, to help them against this injustice and handicap. The Diabetic Association suggested that an investigation should be made of the employment efficiency or disability in our hospital patients so as to produce facts instead of vague impressions. The results of the inquiry follow.

Investigation in a Hundred Cases

No special selection of employed patients was made, but the first 100 employees attending the clinic were studied. As most of these patients attend at intervals of

about three months it took about six months to investigate 100 cases. Both sexes were included, but the majority (75 per cent.) were men. Their ages varied from 14 to 65, but 73 per cent. were under 40 years old and consequently cases of severe diabetes; the majority (83 per cent.) were having insulin treatment continuously. The average amount of insulin given was 35 units, and varied from 8 to 80 units daily. The duration of employment as diabetics varied from one to nineteen years, with an average of five years. All types of employment—some strenuous, some sedentary—were found, and included such occupations as gardening, engineering, carpentry, commercial travelling, shopkeeping, office work, work as telephonist, domestic service, etc.

It is realized that the data obtained are inaccurate, since patients chiefly depend on their memory. In every case, however, we have checked their story from attendance records and found it to be reasonably accurate. The tendency was to remember "diabetic illness" but to forget minor indispositions—influenza, colds, etc.—which, however, were usually noted in the case records. It was soon recognized that it was necessary, in observing the effects of diabetes *per se* on time lost in employment, to distinguish between diabetic illnesses directly due to the disease and fortuitous illnesses: febrile colds, appendicitis, etc.—that is, common illnesses not caused by diabetes. Again, it was thought right to distinguish between the time lost at the onset of diabetes, while treatment was being worked out, and after restoration of health by adequate treatment. We have not included visits to our clinic (on the average four half-days a year) as time lost! The figures have therefore been prepared in the following way:

Loss of Working Time in 100 Diabetic Cases

	Cases
For Diabetic Illness:	
I. No loss of time, even at onset	39
II. Time lost at onset only	38
	<u>77</u>
III. Time lost after first stabilization	23
	<u>100</u>

Analysis of Group III:

	Cases
Restabilization necessary in cases with good health on diet for 1-3 years but which broke down and needed insulin	8
*Sepsis (carbuncles, ulcers of foot, etc.)	5
Diabetic coma	2
Hypoglycaemia and after-effects	4
*Neuritis	2
Cataract (after 11 years' work as diabetic)	1
*Hyperthyroidism	1
	<u>23</u>

* It is doubtful if some of these conditions should be classed as diabetic illnesses.

For non-diabetic Reasons, time was lost by 55

Their illnesses included bronchitis, influenza, appendicitis, accidents, and, of course, colds, bilious attacks, etc.

It was hoped at first to get accurate figures of the days or weeks lost for the above reasons, but this was found impossible. We are sure, however, that our patients were not longer incapacitated from work by influenza, accidents, and so on, than non-diabetic individuals.

The school attendances of children have not been included in this survey, but the matter is being investigated. The result ought to be interesting; the figures will be more accurate, since they can be checked, and will allow of comparison between groups similar in all respects except their diabetic diathesis.

Conclusions

A survey of 100 employed diabetics shows that 77 per cent. lost no time from work because of their diabetes after the initial stabilization of treatment, and the figure is 85 per cent. if the ultimate stabilization on insulin of another 8 per cent. originally treated by diet alone is included; 55 per cent. lost some time from illnesses unconnected with their diabetes. Our survey has no statistical accuracy; even if it had there seem to be no figures available to compare the working time lost by our patients with that lost by a mixed non-diabetic population. We think, however, the survey shows that most treated diabetics are good employees from the health point of view, and hope that the widespread prejudice against their employment may be removed. In addition it should be pointed out that we have surveyed only the hospital section of the working community and that we know that the work loss of a higher stratum of diabetics, whose incentive to work is usually greater, is still less.

We wish to thank the Halley Stewart Trust for grants to our department to provide funds for such social studies.

ACUTE BULBAR PARALYSIS

REPORT OF TWO CASES

BY

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The cases described below present features of sufficiently unusual interest to justify their publication. First, the syndrome was identical in both instances, the bulbar condition being the only paralytic manifestation; and, secondly, both patients died twelve days after tonsillectomy.

Case I

This patient was a female child, aged 6 years, of a small and somewhat frail physique. On July 25 she had her tonsils removed by guillotine. She was seen again on the 29th, when she complained of frontal headache, earache, and slight pyrexia. There was a history of a previously restless night with sudden starting up in fright. In view of the local prevalence of poliomyelitis a routine examination of the nervous system was made, but no evidence of any nervous lesion could be found. The tonsil beds were healthy and granulating. There was no sign of congestion of the drumheads, nor was there any tenderness over the mastoid cells.

The following morning the temperature was normal and the headache was gone, but there were still shooting pains in the ears, with no deafness or signs of otitis. Two days later she was well and wanted to get up. She remained well until August 5, when there was a return of the headache with pyrexia of 99.5° F. The next morning the headache had gone, but the temperature had risen to 103° F. Thick mucus was present in the throat that was difficult to remove; she could not be persuaded to cough it up or to swallow it. She was able to swallow fluids in small quantities, but in a way that suggested the presence of some obstruction in the throat. On examination the throat appeared healthy, but the palate on the right side seemed to be lower. There was no sign of pharyngeal congestion, and the tonsil beds had quite healed. There was a copious amount of thick mucus which made examination difficult, but its removal by a swab was not unduly resented. The child did not look ill, nor did she complain of any pain or discomfort. Constipation was stubborn. During the course of the day the amount of

secretion in the throat increased to a degree which became alarming, and it seemed to threaten to choke her. At this stage a very transient drooping of the right side of the face was noticed on momentary occasions. She developed a wild look, and tried to strike out at anyone who was beside her; she was continually turning from one side to the other and occasionally leapt up in bed; she gave the impression of being enraged at her inability to remove the mucus, for she was able to speak and was quite rational. At this stage the temperature was still 103° F., and the pulse was 110. The only signs in the lungs were a few moist sounds at the bases. The respiratory rate was 22. She was given 1/100 grain of atropine to diminish the secretion, after which she appeared to quiet down and was able to snatch sleep at ten-minute intervals, when the mucus woke her again. The pulse rate did not rise in spite of the atropine.

During the early hours of the morning her condition became worse; the lungs became congested, the pulse rate rose to be uncountable, and the temperature began to fall. There was no attempt at coughing, and the secretion in the throat disappeared while the oedema of the lungs progressed with increasing cyanosis. The soft palate of the right side was much lower than that of the other side. The pupils were small and did not react to light. Towards the end there was a persistent pouting appearance of the lips which was quite symmetrical; she was able to speak, but in a muffled manner. Towards the end she repeatedly asked for drinks, which were mostly regurgitated through the nose.

The congestion and the cyanosis increased and some head retraction was evident. She died about fifteen hours after the first appearance of the acute dysphagia. At no time during the course of the disease was there any disturbance of the nervous reflexes or the muscle tone, with the exception of the terminal head retraction. She was conscious until she died, and was able to understand questions and to reply, although indistinctly.

Post-mortem Findings.—The lungs were oedematous, with several small haemorrhagic infarctions present, probably terminal. The heart muscle appeared healthy, but there was some dilatation of the right side. An excess of free fluid was present in the pericardium. Examination of the brain showed that the pia mater was markedly hyperaemic without any exudate. On section through the medulla the grey matter appeared hyperaemic and bulged. The spinal cord showed no macroscopic change.

Case II

A robust female child, aged 14 years, had her tonsils removed on July 25 on account of a tuberculous adenitis. She made an uneventful recovery from the operation, and was out in the fields a week later. The patient was seen again on the evening of August 6; she gave a history of having been out of sorts for the past two days, which was attributed to the strong sunshine. On examination she was found to have a temperature of 101° F., and, when asked, admitted that she had a slight headache. There was no neck rigidity, and Kernig's sign was negative; abdominal reflexes were active. The bowels had not acted for three days. On the following morning the temperature had risen to 103° F., and the headache was still present though not severe. The pulse rate had dropped to 80 and the respiratory rate was 20. There was a complaint of a thickness in the throat, and a difficulty in raising the phlegm. The throat appeared perfectly healthy and symmetrical, and the tonsil beds had healed up. A throat swab was taken, and the report later stated that no streptococci, haemolytic or non-haemolytic, were present. Examination of the chest failed to reveal any abnormal signs. Later in the day there did not appear to be much change except that the secretion was more copious. The pulse rate was still slow in proportion to the temperature. An hour and a half later the child was seen again. She was then leaping up in bed and flinging her arms about, with a wild look in her eyes. Her temperature was subnormal and the pulse was uncountable; the pupils were dilated. During examination she projected a copious quantity of stomach contents all over the bed. Following this a transient drooping of the