

(which in our patient failed to rise with LHRH values). Patients with no chromosome abnormality and an HCG-secreting tumour may have gynecomastia and an appearance in testicular specimens at biopsy that mimics Klinefelter's syndrome¹; they too have normal testosterone values and suppressed FSH values.⁵ We suggest that karyotyping should be performed on all patients with choriocarcinoma to determine the prevalence of the association of XXY aneuploidy and this tumour, since other data may be misleading.

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Hypoglycaemia in insulin-dependent diabetic drivers

The possibility of hypoglycaemia occurring in insulin-dependent diabetics while driving is well recognised,¹ and a recent case of this type prompted us to study the problem further. A 50-year-old experienced insulin-taking driver was called out suddenly just before his evening meal. His regular source of dextrose was kept in his jacket, which in his haste had been left behind in the house. Severe hypoglycaemia ensued, but fortunately he was able to stop his car without mishap.

Patients, methods, and results

We selected at random 157 insulin-dependent diabetics (age 17-65 years) from patients attending outpatient diabetic clinics in Manchester and Sheffield. Each patient was interviewed by the same person (BC). The questionnaire contained a mixture of questions designed to establish early in the interview whether the patient was a driver. A full account of each

Patients, prevalence of hypoglycaemia while driving, and maintenance of permanent energy source in vehicle

	Men	Women	Total
Number of patients interviewed	86	71	157
No (%) of drivers	68 (79.0)	26 (36.6)	94 (59.8)
Mean (± 1 SD) age of drivers	41.8 \pm 18.08	34.1 \pm 13.20	39.7 \pm 17.28
Mean (± 1 SD) duration of diabetes (years)	14.8 \pm 10.69	10.3 \pm 6.32	13.5 \pm 9.88
No (%) of drivers experiencing symptoms of hypoglycaemia while driving	33 (48.5)	5 (19.2)	38 (40.4)
No (%) of drivers who keep permanent energy sources in their vehicles (91 drivers; 66 men, 25 women)	32 (48.5)	12 (48.0)	44 (48.3)

patient's symptoms of hypoglycaemia was then taken, with particular reference to premonitory symptoms. Precipitating factors such as exercise, emotion, late meals, and alcohol were identified. Patients were then asked where they kept carbohydrate in the event of hypoglycaemia occurring and whether such material was kept permanently in their vehicles. Finally, the patients were asked if they had ever experienced symptoms of hypoglycaemia while driving. No attempt was made to estimate the frequency of this event in any particular case.

In three cases (two men, one woman) it was not possible to ascertain whether carbohydrate material was kept in the vehicle. From the table it may be seen that a much higher proportion of the male diabetic population were drivers (79% of men, compared with 37% of women). Furthermore, 49% of men drivers experienced hypoglycaemia while driving, whereas only 19% of women drivers did so. The presence of any of the patient's premonitory symptoms was taken to indicate that hypoglycaemia was occurring. The table shows that over half of both men and women drivers failed to maintain a permanent energy source in their vehicles.

Comment

Estimates show that about 150 000 diabetics in Great Britain are potential drivers.² Under the Road Traffic Act 1974 diabetes is not a disqualifying disability, although it is recommended that patients requiring insulin should not drive heavy goods vehicles or public service vehicles. Hypoglycaemia may occur suddenly during driving, even in well-stabilised diabetics. Insulin is regarded as a drug under the Road Traffic Act 1962, and a driver with symptoms of hypoglycaemia may be charged with driving while under the influence of drugs. Patients must therefore be advised that if they have any early symptoms they should stop the car and move to the back seat to take their sugar, because it is illegal to be in charge of even a stationary vehicle if under the influence of a drug. Our results indicate that hypoglycaemia while driving is commoner than might be supposed; nevertheless, a more important finding may be that less than 50% of diabetic drivers keep carbohydrate material permanently in their vehicles, although the British Diabetic Association leaflet on the diabetic driver states that carbohydrate should be kept in the car. It is unsafe to depend on material carried in bags or clothes, which may easily be left behind. In addition, road conditions may be such as to prevent drivers from stopping quickly should hypoglycaemia occur. We suggest, therefore, that the education of diabetic drivers to these hazards should be undertaken by all those responsible for their medical care.

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Requests for reprints should be addressed to Dr Ward.

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Finger wrinkling after immersion in water

Wrinkling of the skin over the pulp of the fingers after prolonged immersion in water has been suggested as a test of sympathetic function.^{1,2} Since autonomic fibres are carried in the peripheral nerves, by extension skin wrinkling may also be regarded as a measure of the integrity of the peripheral nerves.³ The physiology of this normal mechanism has been reviewed by Braham *et al.*¹ The simplicity of this innocuous bedside test of autonomic function requires an assessment of its reliability.