

postoperative scores, and the units are not comparable across categories. All of the patients who had a left-sided procedure showed some degree of improvement in verbal abilities, while both the patients who had a right-sided operation in whom visual perception was tested showed improvement in this function.

Comment

These preliminary results suggest that extracranial to intracranial bypass may produce an improvement in some patients with long-standing moderate completed ischaemic stroke. As some of our patients had a longstanding total paralysis of arm before surgery, these deficits may have been regarded as too severe to fall within the criteria for entry into the Canadian co-operative study.⁵

¹ Jacobson, J H, and Suarez, E L, *Surgical Forum*, 1960, **11**, 243.

² Donaghy, R M P, in *Microvascular Surgery*, ed R M P Donaghy and M G Yasargil, p 75. Stuttgart, Georg Thieme, 1967.

³ Yasargil, M G, *Microsurgery Applied to Neurosurgery*, p 105. Stuttgart, Georg Thieme, 1969.

⁴ Greenhalgh, R M, and Illingworth, R D, in *Progress in Stroke Research 1*, ed R M Greenhalgh and F Clifford Rose, p 393. London, Pitman Medical, 1979.

⁵ McDowell, F H, *Stroke*, 1977, **85**, 545.

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How quickly can haemoglobin A₁ increase?

The proportion of glycosylated haemoglobin (HbA₁) correlates with blood and urine glucose measurements, especially those made one to two months before.¹ HbA₁ is particularly valuable in assessing diabetic control, since its concentration is independent of short-term fluctuations in blood glucose. There is evidence that HbA₁ decreases one to two months after improved regulation of blood glucose,² though the time it takes to increase after development of hyperglycaemia is uncertain. A rise in HbA₁ was observed four weeks after development of hyperglycaemia in mice³ and six weeks after relaxation of control in postpartum diabetics.⁴ A significant increase in HbA₁ was also observed in normal people about one month after a glucose load.⁵ We decided to find how quickly a period of hyperglycaemia can lead to increased HbA₁ concentrations.

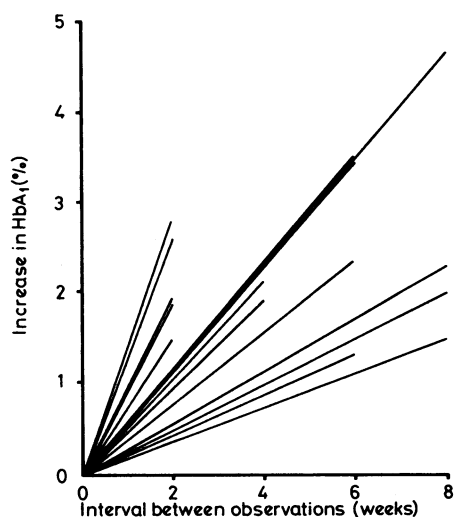
Patients, methods, and results

Twenty-nine insulin-dependent diabetics were studied. In each case HbA₁ was estimated at intervals of two to eight weeks over eight months by macrocolumn chromatography. Diabetic control was assessed with regular urine tests and morning blood glucose estimations. Of the 131 HbA₁ estimations performed, only those in which HbA₁ was increased are reported here.

Comparing each observation with the immediately preceding one we found an increase greater than 1% in 15; of these, six had increased more than 2% and three more than 3%. Five showed an increase in HbA₁ by two weeks (see figure). HbA₁ increased from a range for well-controlled diabetes⁴ in three patients (at intervals of two, four, and six weeks respectively). Before 11 of the 15 estimations hyperglycaemia had worsened: before six of these 11 patients developed persistent 2% glycosuria (four with symptoms), while five of the estimations were from postpartum diabetics whose control had been deliberately relaxed after delivery.

Comment

Most patients showed little change in their HbA₁ concentrations over two months. Some, however, showed large increases within even two weeks, and in two patients HbA₁ increased from a range for well-



Percentage increases in haemoglobin A₁ in 15 subjects according to interval between observations.

controlled diabetes by four weeks. Thus a single HbA₁ estimation may relate to a shorter period of hyperglycaemia than has been suggested.¹ Such rapid changes in HbA₁ limit its value in assessing diabetic control retrospectively, and conclusions about diabetic control drawn from single HbA₁ estimations should be treated with caution.

¹ Koenig, R J, et al, *New England Journal of Medicine*, 1976, **295**, 417.

² Ditzel, J, and Kjaergaard, J-J, *British Medical Journal*, 1978, **1**, 741.

³ Koenig, R J, and Cerami, A, *Proceedings of the National Academy of Sciences of the United States of America*, 1975, **72**, 3687.

⁴ Leslie, R D G, et al, *Lancet*, 1978, **2**, 958.

⁵ Maquert, F X, et al, *Lancet*, 1978, **2**, 431.

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Upper airways obstruction after Dettol ingestion

The following case report describes a hitherto unreported effect of Dettol ingestion which may be important in the management of Dettol poisoning.

Case report

A 22-month-old girl was admitted to hospital 40 minutes after drinking a maximum of 125 ml Dettol. She complained of a sore mouth but had not vomited. Her birth weight had been 1960 g at 33 weeks' gestation. She had been asphyxiated at birth and developed the idiopathic respiratory distress syndrome, from which she had recovered quickly. There was no record of tracheal intubation or controlled ventilation during this period. She had not been prone to upper respiratory tract infections subsequently and had had no hoarseness or noisy breathing. She had had no respiratory symptoms or contact with infectious illnesses immediately before ingesting Dettol.

On arrival in hospital she was conscious and alert. Her temperature was 36.5°C, pulse 112/min, and respiration 28/min. She had mild inspiratory stridor and erythema of the chin and anterior chest wall. Her buccal mucosa was inflamed. Vomiting was induced with syrup of ipecachuana. Thereafter she became progressively more stridulous with subcostal and intercostal retractions. She did not appear to have inhaled vomitus, and there were no signs suggestive of aspiration on a chest radiograph. Within two hours of vomiting she had pronounced stridor with severe retractions and was in imminent danger of complete upper airway obstruction. A nasotracheal tube was passed under general anaesthesia, which immediately relieved her