

<sup>2</sup> Berglund G, Karlberg J, Marky I, Mellander L. A longitudinal study of growth in children with acute lymphoblastic leukaemia. *Acta Paediatr Scand* 1986;74:530-3.

<sup>3</sup> Goustin AS, Lcof EB, Shipley GD, Moses HL. Growth factors and cancer. *Cancer Res* 1986;46:1015-29.

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Dr Bessho comments:

I do not deny the importance of information about the height and its velocity before the onset of acute lymphoblastic leukaemia and the possibility that height at diagnosis may be a function of growth enhancing effect of possible growth factor(s) and growth suppressing effect of the disease (acute lymphoblastic leukaemia). It is worth while to confirm Dr Berglund's finding as a phenomenon with a larger scale study using an appropriate control.

I do not think, however, that this kind of study could clarify the possible role of growth factor(s) on leukaemogenesis. No one can solve single equations with two or more variables. Obviously, other kinds of studies are required for this purpose. Therefore, I carefully avoided making the statement that growth hormone had no role concerning leukaemogenesis.

colic duplication, suspected by antenatal echography at 33 weeks' gestation, was confirmed by operation on day 7. On day 17 she had a second abdominal operation for a hypertrophic pyloric stenosis. Further history has been uneventful.

This association could be explained by a simple embryological mechanism as the development of the thyroid gland (formation and migration between 16th and 50th day of fetal life) and the gut (formation and rotation of the umbilical loop between 21st and 42nd day) both occur early in the fetal development.

The question arises as to whether the results reported by Bamforth *et al* could represent the consequences of local genetic or environmental factors, or both. As suggested by the authors, this point deserves further investigation.

#### References

<sup>1</sup> Bamforth JS, Hughes I, Lazarus J, John R. Congenital anomalies associated with hypothyroidism. *Arch Dis Child* 1986;61:608-9.

<sup>2</sup> Goujard J, Safar A, Rolland A, Job JC. Epidémiologie des hypothyroïdies congénitales malformatives. *Arch Fr Pédiatr* 1981;38:875-9.

<sup>3</sup> Hulse JA, Grant DB, Clayton BE, Lilly P, Jackson D, Sprachlon A. Population screening for congenital hypothyroidism. *Br Med J* 1980;ii:675-8.

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## Congenital anomalies associated with hypothyroidism

Sir,

The report by Bamforth and colleagues of a high incidence of various extrathyroidal abnormalities associated with congenital hypothyroidism detected by neonatal screening<sup>1</sup> is of interest as it could throw new light on the aetiology of these congenital malformations. Such an association had been suggested in infants with congenital hypothyroidism detected on the basis of clinical signs before the era of screening<sup>2</sup> but has not been reported in large series of hypothyroid infants detected by screening.<sup>3</sup>

In a series of infants similar to the one of Bamforth *et al* we could not confirm their findings: since the introduction of neonatal thyroid screening in Belgium in 1974, our own centre has screened 125 257 infants and has detected 41 infants with persistent primary hypothyroidism—that is, an incidence of 1/3055. Only one of them had associated anomalies: this girl was born after a normal pregnancy of 38 weeks' gestation, with biological signs of severe congenital hypothyroidism (serum thyroid stimulating hormone at diagnosis 100 mU/ml and thyroxine 69 nmol/l). Thyroid scintigraphy showed a lingual thyroid gland. A

## Endotracheal suction techniques in the neonate

Sir,

Endotracheal suction of the ventilated neonate is often performed during neonatal intensive care. It has many side effects, including hypoxia, increased blood pressure and cerebral blood flow velocity,<sup>1</sup> and atelectasis.<sup>2</sup> In an attempt to reduce side effects many neonatal units have developed special procedures to achieve efficient suction in the shortest possible time. In one such technique the endotracheal tube suction catheter is attached to a mucus extractor and suction applied by the nurse rather than by the traditional wall mounted vacuum source with a gauge.

We investigated the pressures generated by this technique. The patient end of a mucus extractor was attached directly to a water manometer. Four doctors and six trained experienced nurses were then asked to apply