Transient congenital hypothyroidism

Sir,

Danziger, et al report a case of a transient hypothyroidism (seven months) in a girl whose mother used povidone iodine preparation during pregnancy. They emphasise that the newborn infant had hypothyroidism as a result of exposure to iodine used topically by her mother. They base their hypothesis on the fact that the iodine crosses the maternal skin and loads the immature thyroid gland which becomes saturated. Hormonogenesis is suppressed (Wolff Chaikoff process). After the age of 7 months the iodine loading probably stops and the thyroid hormonogenesis returns to normal. The authors did not prove the iodine overload, however, and they do not report the results of measurements of maternal or neonatal total blood iodine concentrations or ioduria. The permeability of skin and the effect of iodine loading vary.

In 1978 I already recommended that 24 hour urinary iodine excretion should be measured in cases of transient hypothyroidism of the newborn. I emphasised that a common and apparently harmless practice—that is, disinfecting the skin with iodine—results in a profound hormonal disorder, which is dangerous for a neonate. Although this is reversible, thyroid disorder induced in the first days or weeks of life is not necessarily without long term effects.

References