**Thyrotoxicosis incidence in Switzerland and benefit of improved iodine supply**

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Worldwide about 1600 million people are exposed to the risk of iodine-deficiency-related disorders, the elimination of which is one of the major goals of WHO and other organisations.1 Outbreaks of thyrotoxicosis in East Africa have raised concerns about the safety of immediate full correction of iodine deficiency by iodised salt.2,3 Further to our previous report4 we present 16-year follow-up data from Switzerland, where the salt iodine content was raised from 7.5 mg/kg to 15 mg/kg in 1980. Mean urinary iodine excretion increased from 90 μg/g creatinine (mild iodine deficiency) to 150 μg/g creatinine;4 and sonographic thyroid gland volumes in schoolchildren became normal.

We estimated incidence rates from 1990 to 1996 for Graves’ disease and toxic nodular goitre among the 109 000 people living in the catchment area of the Bürgerspital, Solothurn. It is the only institution in the area that has a thyroid specialist and facilities for radioiodine studies and treatment. We assumed, therefore, that most cases of hyperthyroidism were seen at least once in this hospital.

In 1980, after full correction of iodine deficiency, the yearly incidence of toxic nodular goitre and Graves’ disease per 100 000 rose overall by 27% (figure). After 1980, the incidence of toxic nodular goitre decreased substantially per 100 000 population to 6.9 whereas that of Graves’ disease by 27% (figure). After 1980, the incidence of toxic nodular goitre decreased substantially per 100 000 population to 6.9 whereas that of Graves’ disease decreased to only 20.6 (mean of 2 last years). The decrease of Graves’ disease might have been owing to a classification artefact, because of multifocal disseminated autonomy sometimes being mistaken for Graves’ disease.5

Our data suggest that full correction of iodine deficiency leads to a greatly decreased incidence of thyrotoxicosis, in addition to the disappearance of goitre, cretinism, and minor deficiencies of intellect.1 The sharp peak of thyrotoxicosis seen in Africa was not seen in Switzerland, probably because iodine in salt was raised in three steps since 1922.4,5 Our data suggest, however, that a low-grade endemic of toxic nodular goitre must have continued over decades, which raises the question of whether stepwise supplementation is preferable to immediate corrections.6
