

Evaluation of iodized salt and iodine intake, and determination of iodine deficiency in schoolchildren in the region of Rabat

Introduction and purpose of the study: Iodine deficiency has several adverse effects on growth and human development, causing organic disorders commonly known as iodine deficiency disorders (IDDs). Among school-age children, an estimated 29.8% worldwide suffer from iodine deficiency. As a way of fighting IDD, salt iodization remains the best way to increase iodine consumption in a community, this is how it is adopted by several countries in the world, including Morocco; whose IDD is considered moderate

The Aim: The purpose of this study is to determine the level of salt and iodine intake by children in the Rabat capital of the country, and to assess the percentage of iodine deficiency in these children, this pilot study will be used in the preparation of the future National IDD Survey in Morocco.

MATERIAL AND METHODS: This is a cross-sectional study of 280 children and adolescents aged 6 to 18 years. Datas anthropometric data and a questionnaire on food frequency were collected. Urinary excretion of sodium and iodine has been measured in the urine collected over 24 hours, and evaluated respectively, by plasma mass spectrometry by coupling inductive and by spectrophotometry following the Sandell-Kolthoff reaction, creatinine excretion was used to validate the completeness of urine collection.

Results and Statistical Analysis: The mean values observed for the salt were $5.7 \pm 0.2g$ / day, and $96 \mu g$ / l for excretion of iodine. 70% of children have iodine deficiency, 50% of whom consume more than 5g / day recommended by WHO.

Conclusion: the majority of children who consume more than the recommended intake of salt, which is supposed to be fortified with iodine, suffer from iodine deficiency, so the Ministry of Health should consider new alternatives for iodization, and take into consideration these shortcomings during the implementation of its new strategy on reducing salt consumption.

Conclusion: N / A

Conflicts of interest: No conflicts to declare

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