

EFFECTS OF INCREASED DIETARY IODINE INTAKES ON POSTPARTUM THYROID DYSFUNCTION (PPTD) Choue R.W.,

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In Korea, especially for the postpartum women, dietary iodine intakes are greater than that considered necessary for the maintenance of normal thyroid function. This is probably due to the customary encouraged consumption of large quantities of iodine-rich seaweed in their diet. Although the response to excess iodine intakes is highly variable, goiter, hyperthyroidism, hypothyroidism, and thyroiditis could be followed by the intake of 1,500 μg of iodine daily. A few researches are available concerning iodine toxicity in Korea. The purpose of the study is to investigate the relationships between the dietary intakes of iodine and the frequency of postpartum thyroiditis.

One hundred forty-six of normal delivered postpartum women were studied. Dietary intake of iodine and excretion of iodine in breast milk and maternal urine were measured. Serum T3, T4, TSH, anti-thyroglobulin antibody (anti-TgAb), and anti-microsome antibody (anti-McAb) were analyzed before birth and 1, 6, 12, and 24 weeks after delivery. Intake of iodine was analyzed by one-to-one interview using 24-hr recall and food frequency questionnaire.

The result showed that the intake of dietary iodine before, 1 and 24 weeks after delivery were 483 $\mu\text{g}/\text{day}$, 3367 $\mu\text{g}/\text{day}$, and 1069 $\mu\text{g}/\text{day}$, respectively. The amount of iodine in urine at the first week after delivery was 91.14 $\mu\text{g}/\text{dl}$, and that of iodine in breast milk was 23.86 $\mu\text{g}/\text{dl}$. The level of serum T3 and T4 before delivery were 2.01 $\mu\text{g}/\text{dl}$ and 11.49 $\mu\text{g}/\text{dl}$, respectively showing that the levels were dropping to normal values after delivery. The levels of serum anti-TgAb and anti-McAb at 12 weeks after delivery were 84.37 $\mu\text{g}/\text{dl}$ and 145.57 $\mu\text{g}/\text{dl}$, respectively increasing thereafter.

After 3 months of follow-up period, 6 women (11.1%) experienced postpartum thyroiditis, among whom 5 were hyperthyroidism and 1 was hypothyroidism. These figures of postpartum thyroiditis are higher than that of other countries. These women took significantly higher amount of dietary iodine than others during pregnancy and after delivery. One who has a history of thyroidism before pregnancy, is recommended to keep their dietary intake of iodine under 1,000 $\mu\text{g}/\text{day}$.