28 SNPs OF ADIPONECTIN RECEPTOR GENES IN PEDIATRIC DIABETES AND OBESITY

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Adiponectin is a hormone secreted by adipocytes that acts as an anti-diabetic and anti-atherogenic adipokine. Levels of adiponectin in the blood are decreased under conditions of obesity, type 2 diabetes and lipotoxic diabetes. Recently, Yamauchi et al. demonstrated cDNA for adiponectin receptors (AdipoR1 and AdipoR2) (Nature 423:762-768, 2003).

In this study, we identified several SNPs in adiponectin receptor genes. Associations of these SNPs with insulin resistance, obesity or diabetes have been investigated in 60 patients with pediatric obesity and 30 patients with pediatric diabetes. Identification of SNPs altering expression or functions of Adipo R1 and Adipo R2, which are associated with insulin resistance, will be useful in the analysis of pathogenesis of insulin resistance associated with obesity and diabetes in childhood and future development of adiponectin receptor agonists as a tailor-made treatment strategy for obesity and diabetes.

30 Consideration of hyperthyrotropinemia in newborn babies by kambu, other seaweed and instant kambu soups overload during pregnancy these mothers (interim report)


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[Aim] It has increased during 20 years that hyperthyrotropinemia with low or normal T4 level. It thought that there was spread of kambu, other seaweed and instant kambu soups containing a high level of iodine. The present study was done to measure the concentrations of iodine in the daily Japanese diet consumed by the people of Japan, and we investigated the clinical course of newborn infants from mothers who ingested much iodine during pregnancy.

[Object and Method] From April 2000 to March 2002, 37,724 Japanese infants were screened for congenital hypothyroidism in Kumanoto Prefecture and 34 underwent confirmation test. To measure iodine content, concentrations of iodine in serum, urine, breast milk and food were measured using IC-PSMS. The iodine ingestion under pregnancy was caught and investigated, it is marketing, and 100 kinds of iodine of a kind was measured and the amount of iodine ingestion per day was calculated.

[Result] The diagnosis in after-the-birth one year was 5 congenital hypothyroidism, one transient hypothyroidism (TBI), 22 transient hyperthyrotropinemia, 5 hyperthyrotropinemia by over-iodine, and one normal case. Of 5 hyperthyrotropinemia by over-iodine, TSH 38.7 ± 16.6 pg/mL, FT4 4.4 ± 0.3 ng/dL, and pregnancy was one day 2014 ± 1076ug, and they were newborn infant serum iodine 25.8 ± 8.8 pg/mL and breast milk iodine 31.5 ± 6.8 pg/mL.

[Conclusion] We propose that in order to decrease hyperthyrotropinemia at newborn we should restrict iodine ingestion of a pregnant woman.

29 OCCURRENCE FREQUENCY OF CONGENITAL HYPOTHYROIDISM DETECTED BY NEONATAL SCREENING: THE SURVEY IN THE IMPORTANT 8 AREAS.


Committee on Neonatal Mass-screening of the Japanese Society for Pediatric Endocrinology and Collaborators

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There are the report of occurrence frequency of congenital hypothyroidism (CH) by neonatal mass-screening of the Ministry of Health, Welfare and Labor, but there is a problem in the appropriateness. To know the exact frequency, we investigated the occurrence frequency in 8 important areas where the information of the patients is grasped sufficiently.

[Method] The object area of the survey is 8 areas of Hokkaido, Fukuoka, Miyagi Pref., Chiba Pref., and Hiroshima Pref., and Kofu Pref., Kumanoto Pref., Kagoshima Pref. The total screened number, positive number by screening between 1991-1997, the number grasped with this survey, and the diagnosis name were investigated. The case number was revised from the group rate in the this survey. The diagnosis name complied with the definition of a/the Ministry of Health and Welfare research group. This survey was carried out in June, 2000 from June, 2002.

[Result] The frequency of CH that is discovered with neonatal mass-screening was 1/1,548-4,364 (average 3,082 people to people. The frequency of transient hypothyroidism was 1/5,086-6,053 (average 5,880). The frequency of transient hyperthyrotropinemia was 1/1,727-1/2,000. The frequency of both transient thyroid abnormal patients was 1/1,039-11,686 (average 2,360), there was a remarkable difference by the area.

[Conclusion] Because there is the possibility that the one that is not perfect into the case in treatment as CH patient is included yet among the high frequent area, the occurrence frequency of CH is estimated by 3,000-4,000 people with 1 person.

31 DIAGNOSIS AND TREATMENT OF THE POSITIVE CASES FOR CONGENITAL HYPOTHYROIDISM SCREENING TEST

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Aim: Mild congenital hypothyroidism(CH), transient hypothyroidism and transient hyperthyrotropinemia, are recognized after the start of neonatal screening. The indication of treatment of those patients brought us some difficulties. In this paper, we shows clinical data the cases with positive screening test who visited our hospital. Subjects and Methods: The subjects are 83 patients with positive screening test and with L-T4 supplement therapy from 1989 to 1999. Thryoxine test were done in those cases at the age of 3 or 4. We divide the cases into four groups. Group 1A were the cases started L-T4 supplement less than 2 months after their birth and the therapy were continued after scintigraphy and group 1B were those discontinued after scintigraphy. Group 2A were the cases with the TRH test and started L-T4 supplement after 3 months to 18 months after their birth and the therapy were continued after scintigraphy and group 2B were those discontinued after scintigraphy. Results: ABA=39, 1B=25, 2A=18, 2B=11 patients.

*P<0.01, **P<0.05 were significant.

1A vs 1B
1A vs 1B
1A vs 1B
1A vs 1B
1A vs 1B
1A vs 1B
1A vs 1B
1A vs 1B
1A vs 1B