

INTISARI

Latar belakang: Gangguan akibat kekurangan iodium (GAKI) masih menjadi masalah kesehatan yang membutuhkan perhatian dan penanganan serius. Hasil penelitian tahun pertama menunjukkan bahwa 37% kadar iodium darah anak lebih rendah dari 40 ng/dL dengan kasus hipotiroid subklinis. Penelitian dilakukan di daerah endemik GAKI lain yang tercatat pernah menjadi daerah hipotiroid berat, yaitu Kecamatan Samigaluh Kulon Progo. Tujuan penelitian ini adalah untuk mengkaji kadar iodium darah dan korelasinya dengan kadar FT4 dan TSH bayi.

Metode: *Cross sectional study*. Subjek penelitian adalah 50 anak usia dibawah 2 tahun di Desa Ngargosari Samigaluh. Responden diambil sampel darah dan diukur kadar iodium darah dengan metode *Ammonium Persulfat Dry Digestion*, kadar FT4 dan TSH dengan metode ELISA di Laboratorium BPGAKI Borobudur Magelang. Korelasi antar variabel diuji menggunakan korelasi Spearman.

Hasil: Lebih dari separuh anak memiliki kadar iodium darah diantara 52-109 µg/L, yaitu 44 anak (88%) dengan rerata hormon FT4 1,638 ±0,163 ng/dL dan rerata TSH 2,619 ±2,982 mIU/L. Responden dengan kadar iodium darah kurang dari 52 µg/L berjumlah 4 anak (8%) dengan rerata kadar FT4 1,605 ±0,161 ng/dL dan rerata kadar TSH 1,865 ±1,17 mIU/L, responden dengan kadar iodium darah lebih dari 109 µg/L berjumlah 2 anak (4%) dengan rerata kadar hormon FT4 1,69 ±0,084 ng/dL dan rerata kadar TSH 4,16 ±0,82 mIU/L. Uji korelasi Spearman antara kadar iodium darah dengan kadar FT4 dan TSH menunjukkan nilai p masing-masing yaitu 0,769 dan 0,287.

Kesimpulan: Tidak terdapat korelasi bermakna antara kadar iodium darah dengan kadar hormon FT4 dan TSH pada anak di Desa Ngargosari Samigaluh.

Kata kunci: kadar iodium darah, GAKI, FT4, TSH

ABSTRACT

Background: Iodine Deficiency Disorder (IDD) still becomes health problem which needs attention and intensively treatment. Study result in first year show if 37% children's iodine blood level under 40ng/dL with subclinical hypothyroid case. This study is performed in another IDD endemic area that has been noted severe hypothyroid area, is Samigaluh subdistrict Kulon Progo. The point of study is to investigate infant's blood iodine level and the correlation with FT4 and TSH level.

Methods: *Cross sectional study.* Study subjects are 50 under 2nd years children in Ngargosari village Samigaluh. Respondents are taken the blood sample and measured blood iodine level by *Ammonium Persulfat Dry Digestion* method, FT4 with TSH level by ELISA method in Laboratory of BPGAKI Borobudur Magelang. Correlation between variables is tested with Spearman's correlation.

Result: More than half of children have iodine blood level between 52-109 µg/L that 44 children (88%) with average of FT4 hormone is 1,638 ±0,163 ng/dL and average of TSH is 2,619 ±2,982 mIU/L. Respondents with iodine blood level below 52 µg/L are amounted 4 children (8%) with average of FT4 hormone is 1,605 ±0,161 ng/dL and average of TSH is 1,865 ±1,17 mIU/L, respondents with iodine blood level more than 109 µg/L are amounted 2 children (4%) with average of FT4 hormone is 1,69 ±0,084 ng/dL and average of TSH is 4,16 ±0,82 mIU/L. Spearman correlation test between blood iodine level with FT4 and TSH level shows the p value is 0,769 and 0,287.

Conclusion: There is no significant correlation between blood iodium level with FT4 hormone and TSH level on children in Ngargosari village Samigaluh.

Key Word: blood iodine level, GAKI, FT4, TSH