ABSTRACT

Background: Children in endemic area of Iodine Deficiency Syndromes (IDDs) were all in high risk of thyroid dysfunction. The first 2 years old of life is a crucial period where growth and development are on a fast pace, whether it's physical, emotional, social, and intelligence development. Any disturbance in this phase will influence the later outcome of someone's growth and development. Purpose of the research is trying to evaluate were there any correlation between thyroid hormone levels with physical growth in children under 2 years old who lived in IDDs endemic area.

Methods: Analytic observational study; the data were taken with cross sectional method. The subject of this study consists of 50 baby under 2 years old who live in IDDs endemic area, Ngargosari, Samigaluh, Kulon Progo. the blood fT4 level and TSH was measured with ELISA in BP GAKY Borobudur clinical laboratory. Growth indicators such as weight, recumbent length, body mass index using Z -Score, were anthropometry with a standardized. Data analyzed with spearman correlation test.

Result: Thyriod status baby under 2 years old in Ngargosari is Subclinical Hypthyroid 14%, Euthyroid 82%, Subclinical Hyperthyroid 4%. Nutritional status of infant with very short (2%), very thin (2%) and malnutrition (4%). Data analysis shows significant correlation ($p = 0,027$) between Thyroid Hormon with weight body and negative correlation ($r = -0,313$).

Conclusion: Infants with Subclinical Hypothyroidism have nutritional status in obese and than Infants with Subclinical Hyperthyroidism have nutritional status skinny.

Key word : IDDs, fT_4, TSH, Anthropometry, Less Than 2 Years Old Baby.

INTISARI

Latar belakang : Anak-anak di daerah endemik Gangguan Akibat Kekurangan Yodium (GAKY) merupakan anak-anak dengan resiko tinggi mengalami gangguan fungsi tiroid.Usia bawah 2 tahun merupakan usia krusial dimana terjadi pertumbuhan pesat baik secara fisik, maupun perkembangan sosial, mental, emosional, dan intelegensia yang akan sangat mempengaruhi perkembangan selanjutnya. Tujuan penelitian ini untuk mengetahui apakah terdapat hubungan antara status tiroid dengan pertumbuhan fisik bayi usia bawah 2 tahun di daerah endemik GAKY.

Metode : Penelitian Observasional analitik, data diambil secara potong lintang (*cross sectional*). Subjek penelitian terdiri dari 50 bayi usia bawah 2 tahun yang lahir dan menetap di daerah endemik GAKY Desa Ngargosari, Kecamatan Samigaluh, Kabupaten Kulon Progo. Kadar fT_4 dan TSH diukur dengan metode ELISA di Laboratorium Badan Penelitian Gangguan Akibat Kekurangan Yodium Borobudur, Magelang. Indikator Pertumbuhan fisik yang diukur berupa berat badan, panjang badan, Indeks Massa Tubuh (IMT) menggunakan indikator Z-score. Pengukuran menggunakan alat ukur antropometri yang terstandarisasi. Data dianalisis dengan uji korelasi Spearman.

Hasil : Persebaran Status Tiroid Desa Ngargosari adalah Hipotiroid Subklinis 14%, Eutiroid 82%, Hipertiroid Subklinis 4%, masih ditemukan bayi dengan status gizi sangat pendek (2%), sangat kurus (2%), gizi kurang (4%). Hasil analisis data menunjukkan adanya korelasi signifikan ($p = 0{,}027$) antara status tiroid dengan Z- Score berat badan terhadap usia, dan arah negatif ($r = - 0{,}313$).

Kesimpulan : Bayi dengan Hipotiroid Subklinis mempunyai status gizi gemuk dibandingkan Bayi dengan Hipertiroid Subklinis mempunyai status gizi kurus.

Kata kunci : GAKY, fT_4, TSH, Pertumbuhan Fisik, bayi usia bawah 2 tahun.