

ABSTRAK

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Faktor Internal dan Eksternal yang Berhubungan dengan Kadar Antibodi *Immunoglobulin* - M (Igm) Anti *Phenolic Glicolipid* – 1 (Pgl-1) pada Anak dari Penderita Kusta xviii + 91+ 5 Gambar + 34 Tabel + 11 lampiran

Penyakit kusta masih merupakan masalah di Indonesia yang menempati urutan ke tiga di dunia Anak dari penderita kusta mempunyai resiko tinggi tertular penyakit kusta. Kadar antibodi *immunoglobulin* (IgM) anti *Phenolic Glicolipid* -1 (PGL-1) dapat digunakan untuk mendiagnosa kusta subklinik. Tujuan penelitian ini adalah menganalisis hubungan antara faktor internal dan eksternal dengan kadar antibodi IgM anti PGL-1 pada anak dari penderita kusta di perkampungan kusta Jepara.

Penelitian observasional analitik ini dilaksanakan dengan pendekatan belah lintang. Subjek pada penelitian adalah 41 anak dari penderita kusta yang berusia 6-14 tahun yang tinggal di Desa Rehabilitasi Sumbermanis dan Liposos dan memenuhi kriteria inklusi. Pengumpulan data dilakukan dengan wawancara menggunakan kuesioner terstruktur, observasi dan pemeriksaan kadar antibodi IgM anti PGL-1 dengan metode *Enzyme Linked Immuno Assay* (ELISA) dan kadar Zn serum dengan metode *Atomic Absorption Spectrophotometer* (AAS). Analisis data dilakukan dengan korelasi *Rank Spearman* dan *Fishers's Exact* test.

Hasil penelitian menunjukkan terdapat 10 anak (24,4%) yang mengalami kusta subklinik (kadar antibodi IgM anti PGL-1 \geq 605 u/ml). Terdapat hubungan faktor internal yaitu kadar seng plasma dengan kadar antibodi Ig M PGL-1 ($r = 0,379$; $p = 0,015$). Faktor internal lainnya : status imunisasi, usia dan kebersihan diri tidak berhubungan. Faktor eksternal lingkungan fisik : kelembaban, pencahayaan, suhu, kepadatan rumah, ventilasi, jenis lantai dan dinding rumah dan lingkungan non fisik yaitu intensitas kontak dan lama kontak tidak berhubungan dengan kadar antibodi IgM anti PGL-1.

Disimpulkan bahwa faktor internal kadar seng serum berhubungan dengan kadar antibodi IgM anti PGL-1, semakin tinggi kadar Zn serum semakin tinggi kadar antibodi Ig M anti PGL-1. Disarankan untuk melakukan penatalaksanaan dengan terapi profilaksis kusta pada responden yang terdiagnosis kusta subklinik.

Kata kunci : Antibodi Ig M anti PGL-1, Kusta, Faktor Internal dan Eksternal, Perkampungan kusta, Jepara

Kepustakaan : 67 (1965-2015)

ABSTRACT

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**Internal and External Factors relating to Immunoglobulin M (IgM) antibody Levels against Phenolic Glycolipid – 1 (PGL-1) in Children of Leprosy Parents
xviii + 91 + 5 figures + 34 tables + 11 appendices**

Leprosy is still a problem in Indonesia and places a third rank in the world. Children of leprosy sufferers has a high risk to suffer from leprosy. Immunoglobulin M (IgM) antibody levels against Phenolic Glycolipid – 1 (PGL-1) can be used to diagnose sub clinic leprosy. This study aimed at analysing the relationship of internal and external factors with IgM antibody levels against PGL-1 in children of leprosy parents in leprosy village in Jepara.

This was an analytic-observational study using cross-sectional approach. Subjects of this research was 41 children of leprosy parents aged 6-14 years old and lived in Rehabilitation Village of Sumbermanis and Liposos who met inclusion criteria. Data were collected by conducting interview using a structured questionnaire, observing, and examining IgM antibody levels against PGL-1 using a method of *Enzyme-Linked Immunosorbent Assay (ELISA)* and Zinc levels in serum using a method of *Atomic Absorption Spectrophotometer (AAS)*. Data were analysed using *Rank Spearman* and Fisher's exact tests.

The results of this research showed that as many as 10 children (24.4%) suffered from sub clinic leprosy (IgM antibody levels against PGL-1 ≥ 605 u/ml). The Internal factor, Zinc levels in plasma had significant relationship with IgM antibody levels against PGL-1 ($r = 0.379$; $p=0.015$). In contrast, other internal factors, namely status of immunisation, age, and personal hygiene were insignificant. External factors of physical environment namely humidity, lighting, temperature, house density, ventilation, types of floor and house wall and non-physical environment namely intensity of contact and the length of contact were insignificant.

To sum up, the internal factor, Zinc levels in serum significantly related to IgM antibody levels against PGL-1. The higher levels of Zinc in serum, the higher levels of IgM antibody against PGL-1. Management of the disease using prophylaxis treatment of leprosy needs to be undertaken to respondents who were diagnosed sub clinic leprosy.

Keywords: IgM antibody levels against PGL-1, Leprosy, Internal and External Factors, Leprosy Village, Jepara

Bibliography: 67 (1965-2015)