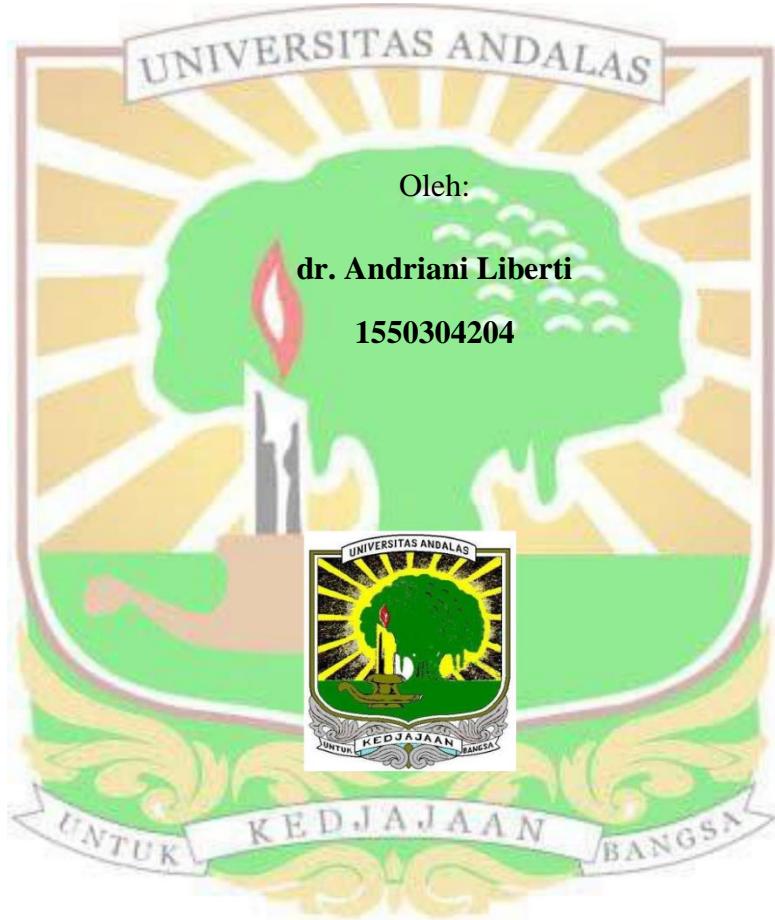


HUBUNGAN KADAR INTERLEUKIN 4 DENGAN KADAR BILIRUBIN PADA NEONATUS YANG CUKUP BULAN

TESIS



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ABSTRAK

HUBUNGAN KADAR INTERLEUKIN 4 DENGAN KADAR BILIRUBIN PADA NEONATUS YANG CUKUP BULAN

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Latar Belakang: Sistem imun neonatus masih berkembang. Penelitian secara epidemiologi menunjukkan terdapatnya hubungan antara provokasi sistem imun pada masa awal neonatus dengan insiden dari tejadinya penyakit alergi dikemudian hari. Proses inisiasi terjadinya alergi melibatkan sitokin salah satunya interleukin 4 (IL-4). Peningkatan kadar bilirubin pada masa neonatus dapat memberikan pengaruh pada sistem imun.

Tujuan: Penelitian ini bertujuan menilai hubungan antara kadar interleukin 4 (IL-4) dengan kadar bilirubin pada neonatus yang cukup bulan.

Metode: Penelitian dilakukan terhadap 37 neonatus cukup bulan (aterm) yang mengalami ikterus neonatorum Kramer ≥ 2 di ruang perinatologi RSUP Dr.M.Djamil dan di RSIA Siti Hawa Padang menggunakan design *cross-sectional* yang dilakukan antara Agustus-November 2020.

Hasil: Rerata kadar IL-4 adalah $0,30 \pm 0,21$ pg/ml. Rerata kadar bilirubin total $12,40 \pm 2,56$ mg/dl. Rerata usia saat mengalami ikterus $4,00 \pm 1,35$ hari, namun tidak terdapat hubungan antara usia ikterus dengan kadar interleukin 4 dan kadar bilirubin. Terdapat hubungan antara kadar IL-4 dengan kadar bilirubin pada neonatus cukup bulan ($p < 0,05$) dengan korelasi sedang ($r = 0,549$). Peningkatan kadar IL-4 yang signifikan terjadi pada kadar bilirubin ≥ 15 mg/dl.

Kesimpulan: Terdapat hubungan dengan korelasi sedang antara kadar IL-4 dengan kadar bilirubin pada neonatus yang cukup bulan.

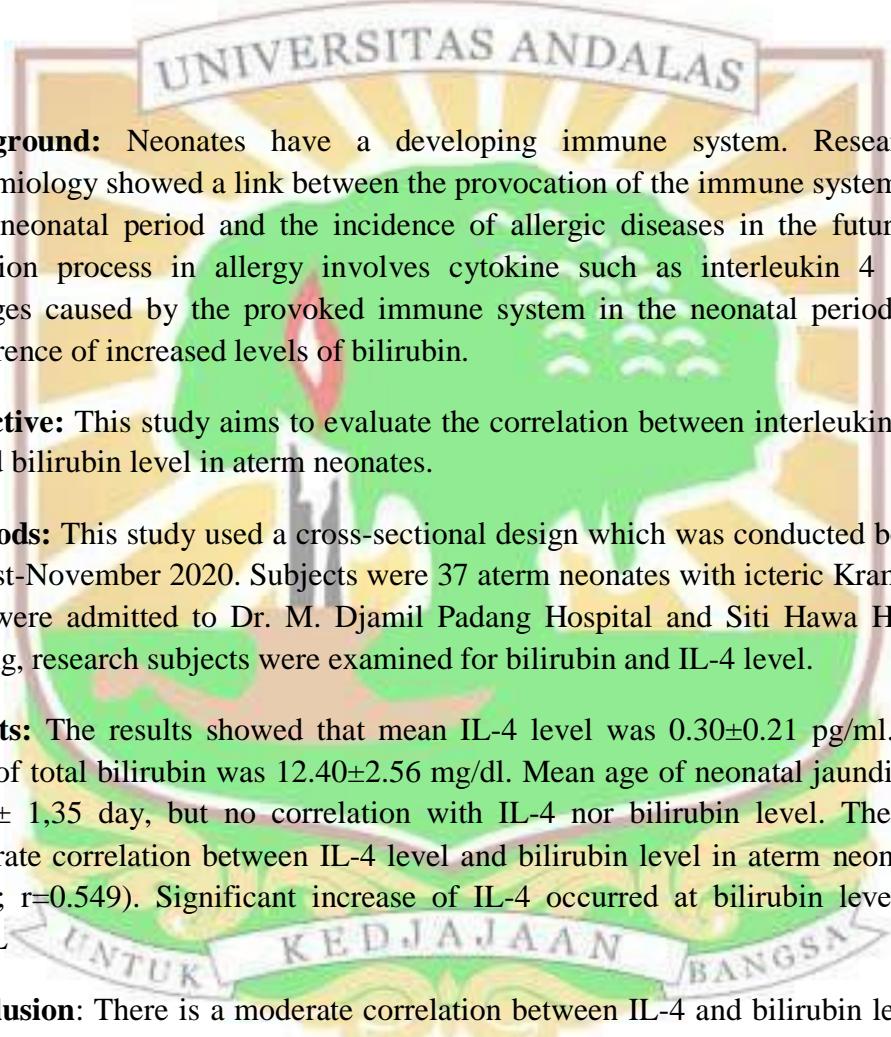
Kata kunci: Interleukin 4, bilirubin, ikterus neonatorum, aterm, alergi

ABSTRACT

CORRELATION BETWEEN INTERLEUKIN 4 AND BILIRUBIN LEVEL IN ATERM NEONATES

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Background: Neonates have a developing immune system. Research in epidemiology showed a link between the provocation of the immune system in the early neonatal period and the incidence of allergic diseases in the future. The initiation process in allergy involves cytokine such as interleukin 4 (IL-4). Changes caused by the provoked immune system in the neonatal period is the occurrence of increased levels of bilirubin.

Objective: This study aims to evaluate the correlation between interleukin 4 (IL-4) and bilirubin level in aterm neonates.

Methods: This study used a cross-sectional design which was conducted between August-November 2020. Subjects were 37 aterm neonates with icteric Kramer ≥ 2 who were admitted to Dr. M. Djamil Padang Hospital and Siti Hawa Hospital Padang, research subjects were examined for bilirubin and IL-4 level.

Results: The results showed that mean IL-4 level was 0.30 ± 0.21 pg/ml. Mean level of total bilirubin was 12.40 ± 2.56 mg/dl. Mean age of neonatal jaundice was $4,00 \pm 1,35$ day, but no correlation with IL-4 nor bilirubin level. There was moderate correlation between IL-4 level and bilirubin level in aterm neonates ($p < 0.05$; $r=0.549$). Significant increase of IL-4 occurred at bilirubin level ≥ 15 mg/dL

Conclusion: There is a moderate correlation between IL-4 and bilirubin levels in aterm neonates.

Key words: Interleukin 4, bilirubin, neonatal jaundice, aterm, allergy