

**PERBEDAAN KADAR INTERLEUKIN 6 (IL-6) SERUM PADA
KEHAMILAN NORMAL TRIMESTER 1 DAN ABORTUS
SPONTAN DI RUMAH SAKIT DI KOTA PADANG**



Skripsi

Diajukan ke Fakultas Kedokteran Universitas Andalas
sebagai Pemenuhan Salah Satu Syarat untuk Mendapatkan
Gelar Sarjana Kedokteran

Oleh:

VELLA AMALIA
NIM : 2010312007

Pembimbing:

Dr. dr. Bobby Indra Utama, Sp.OG(K), Urogin
Dr. Dessy Arisanty, M.Sc

FAKULTAS KEDOKTERAN
UNIVERSITAS ANDALAS
PADANG
2023

ABSTRACT

THE DIFFERENCES IN SERUM INTERLEUKIN 6 LEVELS BETWEEN 1ST TRIMESTER NORMAL PREGNANCY AND SPONTANEOUS ABORTION AT HOSPITALS IN PADANG CITY

By

Vella Amalia, Bobby Indra Utama, Dessy Arisanty, Rauza Sukma Rita, Najirman, Nelmi Silvia

In spontaneous abortion cases without previously known predisposing factors, an increase pro-inflammatory cytokines, especially interleukin 6 (IL-6), found in local and systemic specimens compared to normal 1st-trimester pregnancies. Therefore, IL-6 is thought to have a role in implantation failure in early pregnancy resulting in spontaneous abortion. However, research on serum IL-6 levels in spontaneous abortion patients is still limited in Indonesia. This study aims to determine the difference in serum IL-6 levels in normal pregnancy 1st-trimester and spontaneous abortion in hospitals in Padang City.

This study is an analytical study with a cross-sectional design using secondary data of 21 blood serum samples from each research group at the Biomedical Laboratory of FK Unand which have been taken from the Obstetrics and Gynecology Polyclinic, PONEK Dr. M. Djamil Hospital Padang, Andalas University Hospital, and Dr. Reksodiwiryo Hospital Padang. Samples were collected using a consecutive sampling technique. A serum examination was performed with the ELISA technique. Bivariate data analysis using Mann-Whitney statistical test based on data type and distribution.

The results showed that the mean value of serum IL-6 levels was 280,56 ng/L in the normal pregnancy group in the 1st-trimester and the median value of the spontaneous abortion group was 279,78 ng/L. There was no significant difference in serum IL-6 levels in normal pregnancy in the 1st-trimester and spontaneous abortion ($p = 0,980$).

This study concluded that there was no difference in serum IL-6 levels between patients with normal pregnancy in the 1st-trimester and spontaneous abortion in hospitals in Padang City.

Keywords: *Spontaneous abortion, normal pregnancy, 1st-trimester, serum interleukin 6, cytokines, ELISA.*



ABSTRAK

PERBEDAAN KADAR INTERLEUKIN 6 (IL-6) SERUM PADA KEHAMILAN NORMAL TRIMESTER 1 DAN ABORTUS SPONTAN DI RUMAH SAKIT DI KOTA PADANG

Oleh

Vella Amalia, Bobby Indra Utama, Dessy Arisanty, Rauza Sukma Rita, Najirman, Nelmi Silvia

Pada kejadian abortus spontan tanpa faktor predisposisi yang diketahui sebelumnya, ditemukan peningkatan sitokin pro inflamasi terutama interleukin 6 (IL-6) pada spesimen lokal maupun sistemik dibandingkan kehamilan normal trimester 1. Oleh karena itu, IL-6 diduga memiliki peran dalam gagalnya implantasi pada awal kehamilan sehingga terjadi abortus spontan. Namun, penelitian terhadap kadar IL-6 serum pada pasien abortus spontan masih terbatas di Indonesia. Penelitian ini bertujuan untuk mengetahui perbedaan kadar IL-6 serum pada kehamilan normal trimester 1 dan abortus spontan di rumah sakit di Kota Padang.

Penelitian ini merupakan penelitian analitik dengan desain *cross sectional* menggunakan data sekunder sejumlah 21 sampel serum darah dari masing-masing kelompok penelitian di Laboratorium Biomedik FK Unand yang telah diambil dari Poliklinik Obstetri dan Ginekologi, PONEK RSUP Dr. M. Djamil Padang, Rumah Sakit Universitas Andalas, dan Rumah Sakit dr. Reksodiwiryono Padang. Pengambilan sampel menggunakan teknik *consecutive sampling*. Pemeriksaan serum dilakukan dengan teknik ELISA. Analisis data bivariat menggunakan uji statistik *Mann-whitney* berdasarkan jenis data dan distribusi data.

Hasil penelitian menunjukkan nilai rerata kadar IL-6 serum sebesar 280,56 ng/L pada kelompok kehamilan normal trimester 1 dan nilai median kelompok abortus spontan sebesar 279,78 ng/L. Tidak terdapat perbedaan bermakna kadar IL-6 serum pada kehamilan normal trimester 1 dan abortus spontan ($p = 0,980$).

Penelitian ini menyimpulkan bahwa tidak terdapat perbedaan kadar IL-6 serum antara pasien kehamilan normal trimester 1 dan abortus spontan di rumah sakit di Kota Padang.

Kata Kunci: Abortus spontan, kehamilan normal, trimester 1, interleukin 6 serum, sitokin, ELISA.

