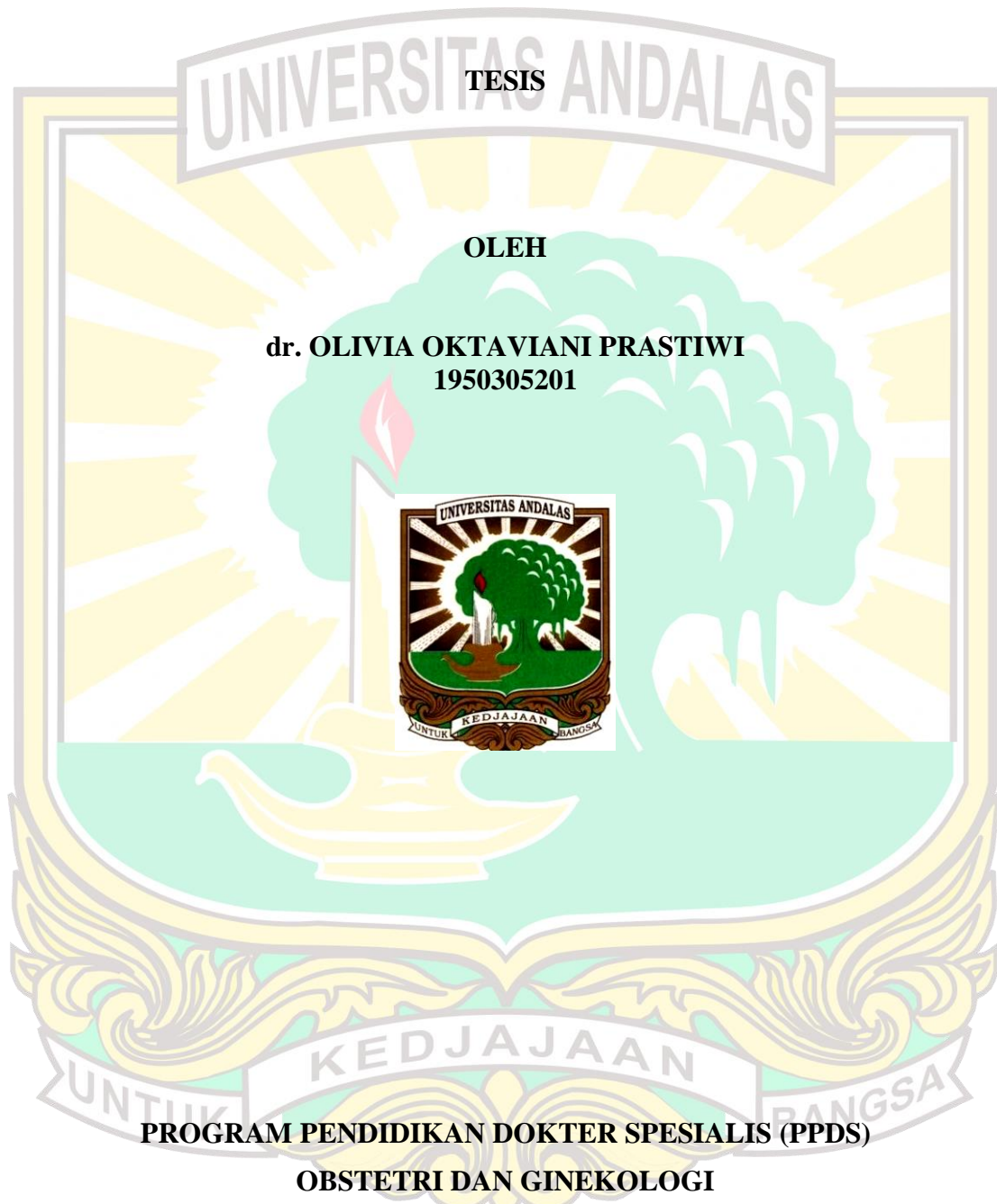


**PENGARUH KADAR VITAMIN D DAN *TUMOR NECROSIS FACTOR*
ALPHA TERHADAP KEHAMILAN NORMAL TRIMESTER 1 DAN
ABORTUS SPONTAN**



TESIS

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ABSTRACT**THE EFFECT OF VITAMIN D LEVELS AND TUMOR NECROSIS FACTOR ALPHA ON TRIMESTER 1 NORMAL PREGNANCY AND SPONTANEOUS ABORTION**

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Introduction : Vitamin D is a nutrient that is closely related to the incidence of abortion in the first trimester. TNF- α is one of the most important inflammatory cytokines for the early control of abortion. The importance of these two things in the mother's pregnancy is believed to be able to reduce the percentage of miscarriages in Indonesia and prevent the incidence of illness in the mother.

Objectives : This research aims to determine differences in levels of Vitamin D and TNF- α inflammatory factor in 1st trimester normal pregnancy patients and patients with abortion.

Methods : The research design was Cross Sectional. This research was conducted at the Obstetrics and Gynecology Polyclinic, PONEK RSUP Dr. M. Djamil Padang, Andalas University Hospital, dr. Reksodiwiryono Padang for blood sampling. Examination of levels of 1,25 dihydroxy vitamin D₃, inflammatory factor (TNF- α) in maternal serum was carried out at the Biomedical Laboratory of Andalas University, Padang. The number of samples analyzed were 44 patients.

Results : This research found that the average in the normal group was higher than the abortion group of 54.65 ng/ml and 50.98 ng/ml. The average TNF- α level in the abortion group was higher than in normal pregnancies, 536.24 ng/L and 165.91 ng/L. The median difference in serum levels of 1.25 dihydroxy vitamin D₃ was 54.99 ng/ml higher than that of pregnancy, namely abortion of 51.10 ng/ml. The result of the significance test was 0.047, meaning that there was a difference in serum levels of 1.25 dihydroxy vitamin D₃ between abortion and normal pregnancy. The median difference in TNF- α was 173.77 ng/L higher than in normal pregnancy, which was 93.35 ng/L with a significance test of 0.108, meaning that there was no difference in TNF- α between abortion and normal pregnancy.

Conclusion : There are parameters other than vitamin D that can be a factor in maintaining a longer pregnancy and preventing abortion and it is necessary to examine other inflammatory factors so that they become a reference and standard in pregnancy examinations.

Keywords : Vitamin D, TNF- α , Spontaneous Abortion, Normal Pregnancy

ABSTRAK**PENGARUH KADAR VITAMIN D DAN *TUMOR NECROSIS FACTOR ALPHA* TERHADAP KEHAMILAN NORMAL TRIMESTER 1 DAN ABORTUS SPONTAN**

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Pendahuluan : Vitamin D merupakan salah satu zat gizi yang memiliki kaitan erat dengan kejadian abortus di trimester pertama. TNF- α merupakan salah satu sitokin inflamasi terpenting untuk kontrol awal kejadian abortus. Pentingnya kedua hal ini dalam kehamilan ibu diyakini mampu menurunkan presentase keguguran di Indonesia dan pencegahan kejadian sakit pada ibu.

Tujuan : Penelitian ini bertujuan untuk mengetahui perbedaan kadar Vitamin D dan faktor inflamasi TNF- α pada pasien kehamilan normal trimester 1 dan pasien dengan kejadian abortus.

Metode: Desain penelitian adalah *Cross Sectional* (potong lintang), Penelitian ini dilakukan di Poliklinik Obstetri dan Ginekologi, PONEK RSUP Dr. M. Djamil Padang, Rumah Sakit Universitas Andalas, Rumah Sakit dr. Reksodiwiryo Padang untuk pengambilan sampel darah. Pemeriksaan kadar 1,25 dihidroksi vitamin D3, faktor inflamasi (TNF- α) serum maternal dilakukan di Laboratorium Biomedik Universitas Andalas Padang. Jumlah sampel yang dianalisis sebesar 44 pasien.

Hasil: Penelitian ini didapatkan bahwa rerata pada kelompok normal lebih tinggi dibandingkan kelompok kehamilan abortus sebesar 54,65 ng/ml dan 50,98 ng/ml. Rata-rata kadar TNF- α kelompok abortus lebih tinggi dibandingkan kehamilan normal sebesar 536,24 ng/L dan 165,91 ng/L. Perbedaan median kadar serum 1,25 dihidroksi vitamin D3 lebih tinggi 54,99 ng/ml dibandingkan dengan kehamilan yaitu abortus sebesar 51,10 ng/ml. Hasil uji signifikansi didapatkan sebesar 0,047 artinya terdapat perbedaan kadar serum 1,25 dihidroksi vitamin D3 antara abortus dan kehamilan normal. Perbedaan median TNF- α lebih tinggi 173,77 ng/L dibandingkan dengan kehamilan normal yaitu sebesar 93,35 ng/L dengan uji signifikansi didapatkan sebesar 0,108 artinya tidak terdapat perbedaan TNF- α antara abortus dan kehamilan normal.

Kesimpulan : Terdapat parameter selain vitamin D yang dapat menjadi faktor untuk mempertahankan kehamilan lebih lama dan mencegah kejadian abortus dan perlu dilakukan pemeriksaan pada faktor inflamasi lain agar menjadi acuan dan standar dalam pemeriksaan kehamilan.

Kata kunci : Vitamin D, TNF- α , Abortus Spontan, Kehamilan Normal