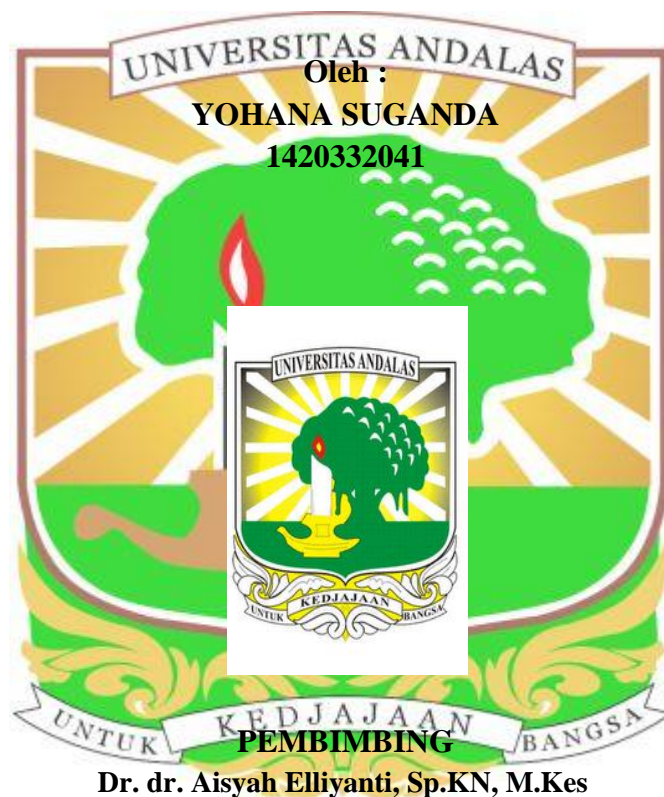


**PERBEDAAN KADAR TUMOR NECROSIS FACTOR ALPHA
(TNF- α) DAN *PROGESTERONE-INDUCED BLOCKING
FACTOR* (PIBF) SERUM PADA USIA KEHAMILAN
KURANG 12 MINGGU DENGAN
ABORTUS IMINENS**

TESIS



**PROGRAM PASCASARJANA KEBIDANAN
FAKULTAS KEDOKTERAN UNIVERSITAS ANDALAS
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ABSTRAK

PERBEDAAN KADAR TUMOR NECROSIS FACTOR ALPHA (TNF- α) DAN PROGESTERONE-INDUCED BLOCKING FACTOR (PIBF) SERUM PADA USIA KEHAMILAN KURANG 12 MINGGU DENGAN ABORTUS IMINENS

YOHANA SUGANDA

Abortus merupakan salah satu masalah di dunia yang mempengaruhi kesehatan, kesakitan dan kematian ibu hamil. Di Indonesia tercatat memiliki angka kejadian abortus 10% -15% dari enam juta kehamilan setiap tahunnya atau sekitar 600-900 ribu kejadian. Mekanisme kerja *abortus iminens* yang dikaitkan dengan *progesterone-induced blocking factor* (PIBF) merupakan mediator yang diproduksi oleh limfosit wanita hamil yang telah mengalami sensitisasi oleh progesterone yang akan menyebabkan terjadinya toleransi terhadap antigen paternal dengan menekan produksi sitokin Th-1 dan memicu aktivasi *Tumor necrosis factor alpha* (TNF- α) yang merupakan salah satu sitokin proinflamasi sehingga merangsang aktivitas sitotoksik pada sel NK, serta menghambat proliferasi sel trofoblas *in vitro* dan menjadi penyebab terjadinya abortus. Konsentrasi PIBF ditemukan lebih rendah sedangkan konsentrasi TNF- α ditemukan lebih tinggi pada penderita *abortus iminens* dibandingkan dengan kehamilan kurang dari 12 minggu.

Desain penelitian *cross sectional study*, penelitian dilakukan di Ruang Kebidanan RS Bhayangkara Padang, RS dr. Reksodiwiryo Padang, RS Islam Ibnu Sina Padang, dan RS dr. Rasidin Padang, IBI Padang Pariaman dan Laboratorium Biomedik Universitas Andalas pada bulan Desember 2017- Desember 2018. Sampel penelitian ini adalah pasien *abortus iminens* dan kehamilan kurang dari 12 minggu sebanyak 36 sampel dengan cara *consecutive sampling*. Kadar TNF- α dan PIBF diperiksa dengan ELISA. Uji normalitas data dengan uji *Shapiro Wilk* dilanjutkan dengan uji *Mann-Whitney*.

Hasil penelitian menunjukkan rerata kadar TNF- α pada kelompok *abortus iminens* adalah 3.75 ± 1.03 ng/ml dan kadar TNF- α kehamilan < 12 minggu 3.03 ± 0.88 ng/ml dengan $p=0,03$, rerata kadar PIBF pada kelompok *abortus iminens* adalah 33.92 ± 9.88 ng/ml dan kadar PIBF kehamilan < 12 minggu 43.41 ± 13.52 ng/ml dengan $p=0,00$.

Kesimpulan penelitian ini adalah terdapat perbedaan kadar *progesterone-induced blocking factor* (PIBF) dan *Tumor necrosis factor alpha* (TNF- α) kelompok *abortus iminens* dan kehamilan < 12 minggu.

Kata Kunci : *progesterone-induced blocking factor*, *Tumor necrosis factor alpha*, *abortus iminens*, Kehamilan kurang dari 12 minggu

ABSTRACT

DIFFERENCES PROGESTERONE-INDUCED BLOCKING FACTOR AND TUMOR NECROSIS FACTOR ALPHA ON ABORTION IMMINENS AND PREGNANCY BELOW 12 WEEKS

YOHANA SUGANDA

Abortion is one of the problems in the world that affects the health, pain and death of pregnant women. In Indonesia it is recorded that the incidence of abortion is 10% -15% of the six million pregnancies per year or around 600-900 thousand incidents. The mechanism of action of immune abortion associated with progesterone-induced blocking factor (PIBF) is a mediator produced by lymphocytes of pregnant women who have been sensitized by progesterone which will cause tolerance to paternal antigens by suppressing the production of Th-1 cytokines and triggers activation of Tumor necrosis factor alpha (TNF- α) which is one of the proinflammatory cytokines that stimulates cytotoxic activity in NK cells, and inhibits trophoblast cell proliferation in vitro and is the cause of abortion. PIBF concentrations were found to be lower while TNF- α concentrations were found to be higher in patients with immune abortion compared to pregnancies of less than 12 weeks.

The cross sectional study design was conducted in Citra Bunda Medical Centre Hospital, Bhayangkara Hospital, Reksodiwiry Hospital, Ibnu Sina Hospital, Yos Sudarso Hospital, Rasidin Hospital and Biomedical Laboratory of Andalas University in Desember 2017 until Oktober 2018. The sample of this study was abortion imminens and pregnant women < 12 weeks as many as 40 people by consecutive sampling. TNF- α and PIBF levels with ELISA. Test the normality of data by *Shapiro Wilk* test by using Mann-Whitney Test.

The results showed mean TNF- α levels in the abortion imminens group with pregnant women < 12 weeks were 3.75 ± 1.03 ng / ml vs 3.03 ± 0.88 ng / ml with $p = 0,03$. mean PIBF levels in the abortion imminens group with pregnant women < 12 weeks were 33.92 ± 9.88 ng / ml vs 43.41 ± 13.52 ng / ml with $p = 0,00$

The conclusion of this study was that there was a difference in *progesterone-induced blocking factor* and *Tumor necrosis factor alpha* in the abortion imminens and pregnant women < 12 weeks.

Key Words: progesterone-induced blocking factor, Tumor necrosis factor alpha, Abortion Imminens, pregnant women < 12 weeks