

**PERBANDINGAN KADAR *HEAT SHOCK PROTEIN 90* DAN
TUMOR NECROSIS FACTOR- α ANTARA KEHAMILAN
PRETERM DENGAN KETUBAN PECAH DINI
DAN TANPA KETUBAN PECAH DINI**

TESIS



**PROGRAM STUDI S2 ILMU KEBIDANAN
PASCASARJANA FAKULTAS KEDOKTERAN
UNIVERSITAS ANDALAS
PADANG
2018**

ABSTRAK

PERBANDINGAN KADAR *HEAT SHOCK PROTEIN 90* (HSP 90) DAN *TUMOR NECROSIS FACTOR- α* ANTARA KEHAMILAN PRETERM DENGAN KETUBAN PECAH DINI DAN TANPA KETUBAN PECAH DINI

RIRI KARNAIN

UNIVERSITAS ANDALAS

Ketuban pecah dini (KPD) preterm masih menjadi masalah karena berhubungan dengan morbiditas dan mortalitas maternal maupun perinatal. Prevalensinya masih tinggi. KPD berkaitan dengan peningkatan kadar *Heat Shock Protein 90* (HSP 90) dan *Tumor Necrosis Factor- α* (TNF- α) yang muncul akibat stres oksidatif dan inflamasi sistemik. Tujuan penelitian ini adalah untuk membandingkan kadar HSP 90 dan TNF- α antara kehamilan preterm dengan KPD dan tanpa KPD.

Rancangan penelitian yaitu observasional dengan pendekatan *comparative study* yang dilaksanakan di RSUD dr. Rasidin, RS Tk.III Reksodiwiryo, RS Bhayangkara, Puskesmas Lubuk Buaya dan Laboratorium Biomedik Fakultas Kedokteran Universitas Andalas pada bulan Oktober 2017– Juli 2018. Populasi penelitian ini adalah ibu hamil dengan usia kehamilan 28-34 minggu dengan diagnosis KPD dan tanpa KPD. Sampel penelitian berjumlah 24 responden ibu hamil preterm dengan KPD dan 24 responden ibu hamil preterm tanpa KPD dengan menggunakan teknik *consecutive sampling*. Pemeriksaan HSP 90 dan TNF- α menggunakan metode ELISA. Uji normalitas data dengan uji *Shapiro-Wilk*. Analisis data komparatif menggunakan uji *Mann-Whitney*.

Hasil penelitian menunjukkan median kadar HSP 90 yaitu 11,21 ng/mL pada kehamilan preterm dengan KPD dan 9,15 ng/mL pada kehamilan preterm tanpa KPD dengan nilai $p < 0,05$. Median kadar TNF- α yaitu 0,21 ng/mL pada kehamilan preterm dengan KPD dan 0,17 ng/mL pada kehamilan preterm tanpa KPD dengan nilai $p < 0,05$.

Kesimpulan penelitian ini adalah median kadar HSP 90 dan TNF- α pada kehamilan preterm dengan KPD lebih tinggi secara bermakna dibandingkan pada kehamilan preterm tanpa KPD.

Kata kunci : *Heat Shock Protein 90, Tumor Necrosis Factor- α , Kehamilan Preterm Dengan KPD, Kehamilan Preterm Tanpa KPD*

ABSTRACT

THE COMPARISON OF *HEAT SHOCK PROTEIN 90 (HSP 90)* AND *TUMOR NECROSIS FACTOR- α* BETWEEN PRETERM PREMATURE RUPTURE OF MEMBRANE AND NORMAL PREGNANCY

RIRI KARNAIN

UNIVERSITAS ANDALAS

Preterm premature rupture of membranes (PPROM) is associated with both maternal and perinatal morbidity and mortality, and its prevalence is high. PPRM is associated with elevated levels of Heat Shock Protein 90 (HSP 90) and Tumor Necrosis Factor- α (TNF- α), both are regarded as markers of oxidative stress and systemic inflammation. The purpose of this study was to compare the serum levels of HSP 90 and TNF- α levels between PPRM and normal pregnancy.

The design of this study was observational with comparative study approach which was conducted at RSUD dr. Rasidin, RS Tk.III Reksodiwiryo, RS Bhayangkara, Health Care of Lubuk Buaya and Biomedic Laboratory at Faculty of Medicine Andalas University during October 2017 to July 2018. The population was pregnant women with gestational age 28-34 weeks diagnosed with of PPRM and normal pregnancy. Research samples were divided into two groups, 24 samples of PPRM and 24 samples of normal pregnancy, selected based on consecutive sampling. Levels of HSP 90 and TNF- α were assessed by ELISA method. Data were statistically analyzed with Shapiro-wilk test for normality. Unpaired Mann-Whitney test was used for the comparative data analysis.

The results showed that median serum levels of HSP 90 is 11,21 ng/mL in PPRM and 9,15 ng/mL in normal pregnancy, with $p < 0.05$. The median serum levels of TNF- α is 0,21 ng/mL in PPRM and 0,17 ng/mL in normal pregnancy, with $p < 0.05$.

In conclusion, the median serum levels of HSP 90 and TNF- α in PPRM are higher than in normal pregnancy and there are significant differences.

Keywords: Heat Shock Protein 90, Tumor Necrosis Factor- α , PPRM, Normal pregnancy