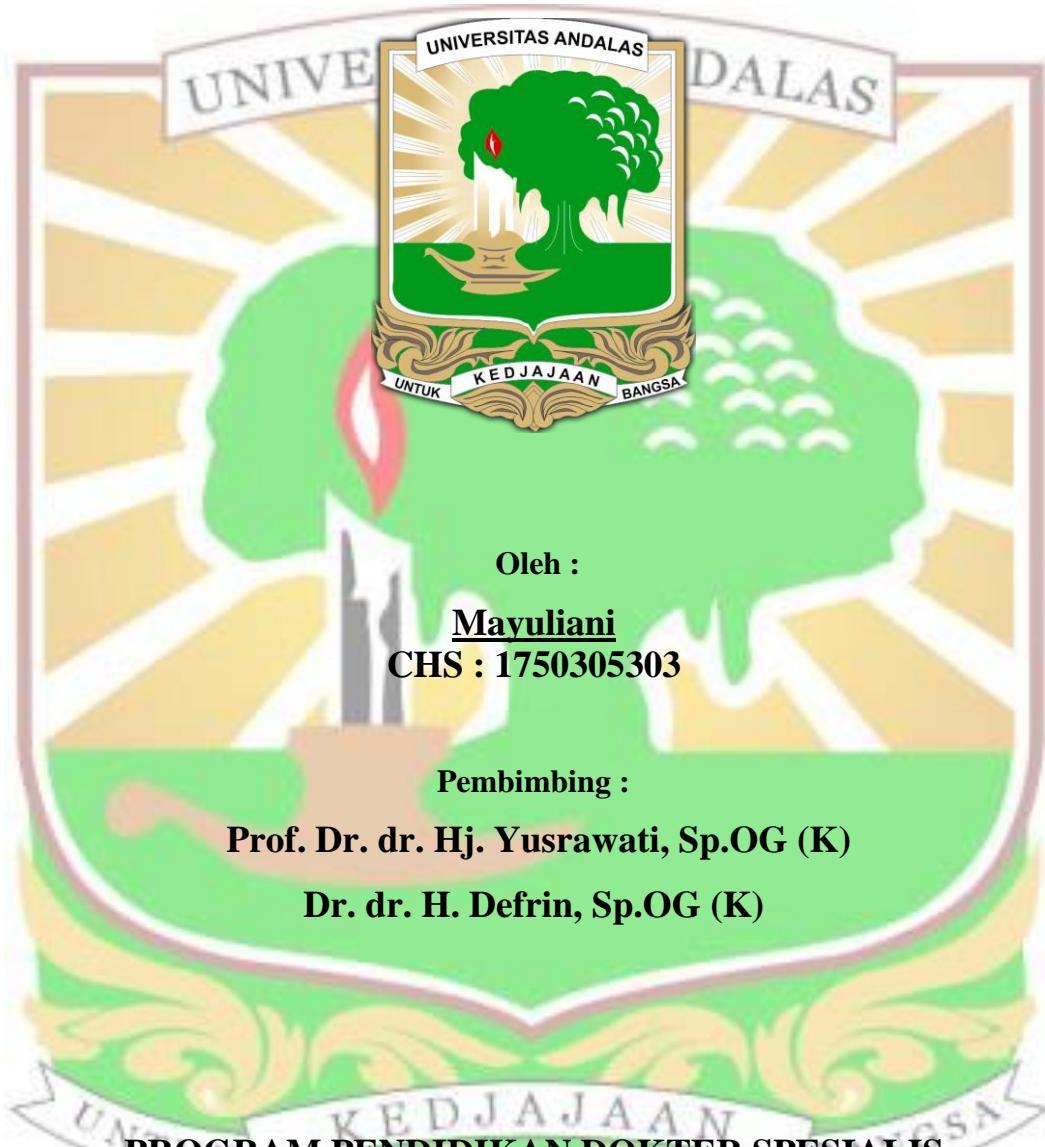


**KORELASI KADAR BRAIN DERIVED NEUROTROPHIC  
FACTORS (BDNF) DENGAN OUTCOME MATERNAL DAN  
PERINATAL PADA PREEKLOMPSIA**

**TESIS**



**PROGRAM PENDIDIKAN DOKTER SPESIALIS  
OBSTETRI DAN GINEKOLOGI  
FAKULTAS KEDOKTERAN UNAND  
PADANG  
2020**

## ABSTRAK

### KORELASI KADAR BRAIN DERIVED NEUROTROPHIC FACTORS (BDNF) DENGAN OUTCOME MATERNAL DAN PERINATAL PADA PREEKLAMPSIA

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RSUP Dr. M. Djamil Padang

**Tujuan :** Menganalisa korelasi BDNF terhadap *outcome* maternal dan perinatal pada preeklampsia.

**Metode :** Penelitian observasional analitik menggunakan desain *cross sectional* terhadap 73 orang ibu hamil dengan preeklampsia. Penelitian dimulai pada bulan Januari 2020 sampai dengan Juni 2020 di bagian Obstetri dan Ginekologi Rumah Sakit Umum Pendidikan Dr. M. Djamil Padang.

**Hasil :** Rerata kadar BDNF ibu hamil dengan preeklampsia adalah  $519,9 \pm 325,4$  pg/ml. korelasi BDNF dengan tekanan darah sistolik, tekanan darah diastolik, dan *Mean Arterial Pressure* adalah berkorelasi negatif ( $r = -0,145$ ,  $-0,1$ , dan  $-0,218$ ), dengan korelasi lemah. Tidak terdapat perbedaan yang bermakna antara BDNF dengan tekanan darah sistolik, tekanan darah diastolik, dan *Mean Arterial Pressure* ( $p>0,05$ ). Korelasi BDNF dengan berat badan dan panjang badan bayi adalah berkorelasi positif ( $0,196$  dan  $0,205$ ) dengan korelasi lemah. Korelasi kadar BDNF dengan *apgar score* adalah berkorelasi negatif ( $-0,039$  dan  $-0,054$ ) dengan korelasi lemah. Tidak terdapat perbedaan yang bermakna antara BDNF dengan berat badan, panjang badan dan *apgar score* ( $p>0,05$ ).

**Kesimpulan:** Rerata kadar BDNF pada preeklampsia lebih rendah dibanding kehamilan normal, terdapat korelasi negatif antara kadar BDNF dengan *outcome* maternal pada preeklampsia dengan korelasi lemah. Terdapat korelasi positif antara kadar BDNF dengan *outcome* perinatal (berat badan dan panjang badan bayi) pada preeklampsia dan terdapat korelasi negatif antara kadar BDNF dengan *apgar score* pada preeklampsia dengan korelasi lemah.

**Kata kunci :** *Brain Derived Neurotrophic Factors*, preeklampsia, *outcome* maternal, *outcome* perinatal

## ABSTRACT

### THE CORRELATION BETWEEN LEVELS OF BRAIN DERIVED NEUROTROPHIC FACTORS (BDNF) WITH MATERNAL AND PERINATAL OUTCOMES IN PREECLAMPSIA

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**Objective:** To analyze the correlation between BDNF and maternal and perinatal outcomes in preeclampsia.

**Methods:** This was an observational analytic study with a cross-sectional design on 73 pregnant women with preeclampsia. The study began in January 2020 to June 2020 in the Obstetrics and Gynecology Department of Dr M. Djamil Hospital Padang.

**Results:** The mean BDNF levels of pregnant women with preeclampsia were  $519.9 \pm 325.4$  pg/ml. The correlation between BDNF and systolic blood pressure, diastolic blood pressure, and Mean Arterial Pressure was negatively correlated ( $r = -0.145, -0.1$ , and  $-0.218$ ), with a weak correlation. There was no statistically significant relationship between BDNF and systolic blood pressure, diastolic blood pressure, and mean arterial pressure ( $p > 0.05$ ). BDNF correlation with infant birth weight and the birth length was positively correlated (0.196 and 0.205) with a weak correlation. The correlation between BDNF level and Apgar score was negatively correlated (-0.039 and -0.054) with a weak correlation. There was no statistically significant correlation between BDNF with birth weight, birth length, and Apgar score ( $p > 0.05$ ).

**Conclusion:** The mean BDNF level in preeclampsia was lower than normal pregnancy, there was a negative correlation between BDNF levels and maternal outcomes in preeclampsia with a weak correlation. There was a positive correlation between BDNF levels and perinatal outcomes (birth weight and birth length) in preeclampsia and there was a negative correlation between BDNF levels and Apgar score in preeclampsia with a weak correlation.

**Keywords:** Brain Derived Neurotrophic Factors, Preeclampsia, Maternal Outcome, Perinatal Outcome