

Tesis

**PERBEDAAN KADAR *NEUTROPHIL GELATINASE ASSOCIATED LIPOCALIN* SERUM BERDASARKAN KLASIFIKASI PREEKLAMPSIA**



**PROGRAM PENDIDIKAN DOKTER SPESIALIS I  
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# PERBEDAAN KADAR *NEUTROPHIL GELATINASE ASSOCIATED LIPOCALIN* SERUM BERDASARKAN KLASIFIKASI PREEKLAMPSIA

## ABSTRAK

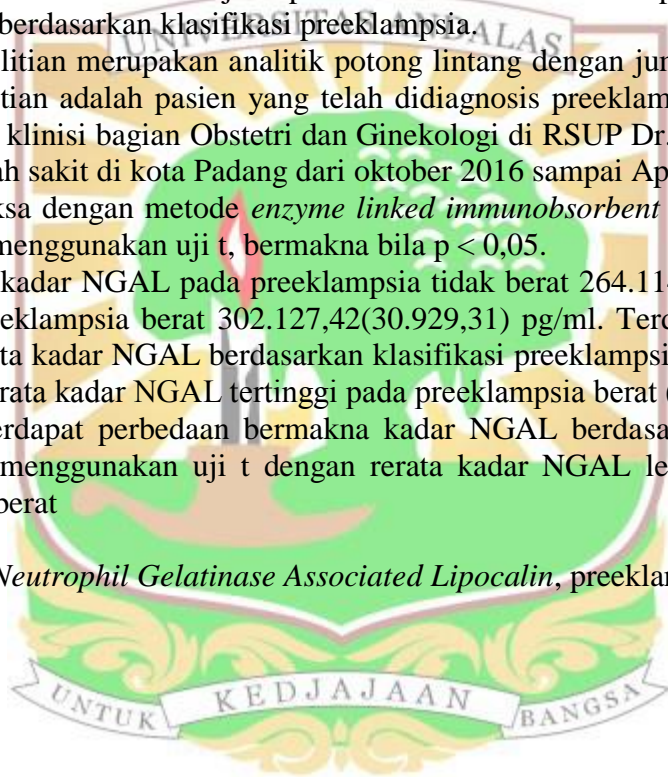
**Latar Belakang:** Preeklampsia merupakan *new onset* hipertensi dengan proteinuria setelah kehamilan 20 minggu dan merupakan salah satu penyebab peningkatan angka kesakitan dan kematian pada ibu dan anak. American College Obstetry and Gynecology (ACOG) membagi preeklampsia menjadi tidak berat dan berat. Disfungsi endotel vaskuler dianggap sebagai patogenesis preeklampsia. Kadar *Neutrophil Gelatinase Associated Lipocalin* (NGAL) serum erat kaitannya terhadap kerusakan endotel. Tujuan penelitian ini untuk menilai perbedaan kadar NGAL serum berdasarkan klasifikasi preeklampsia.

**Metode:** Penelitian merupakan analitik potong lintang dengan jumlah sampel 57. Sampel penelitian adalah pasien yang telah didiagnosis preeklampsia tidak berat dan berat oleh klinisi bagian Obstetri dan Ginekologi di RSUP Dr. M. Djamil dan beberapa rumah sakit di kota Padang dari oktober 2016 sampai April 2017. Kadar NGAL diperiksa dengan metode *enzyme linked immunosorbent assay* (ELISA). Analisis data menggunakan uji t, bermakna bila  $p < 0,05$ .

**Hasil:** Rerata kadar NGAL pada preeklampsia tidak berat 264.114,12(17.212,71) pg/ml dan preeklampsia berat 302.127,42(30.929,31) pg/ml. Terdapat perbedaan bermakna rerata kadar NGAL berdasarkan klasifikasi preeklampsia menggunakan uji t dengan rerata kadar NGAL tertinggi pada preeklampsia berat ( $p=0,0001$ ).

**Simpulan:** Terdapat perbedaan bermakna kadar NGAL berdasarkan klasifikasi preeklampsia menggunakan uji t dengan rerata kadar NGAL lebih tinggi pada preeklampsia berat

**Kata Kunci:** *Neutrophil Gelatinase Associated Lipocalin*, preeklampsia.



**DIFFERENCE OF SERUM NEUTROPHIL GELATINASE  
ASSOCIATED LIPOCALIN LEVEL BASED  
ON PREECLAMPSIA CLASSIFICATION**

**ABSTRACT**

**Background:** Preeclampsia is a new onset of hypertension with proteinuria in 20 weeks or more gestational and leads to increase of morbidity and mortality in mother and children. American College Obstetry and Gynecology (ACOG) classified preeclampsia into non severe and severe. Vascular endothelial discfunction is thought as pathogenesis in preeclampsia. Neutrophil Gelatinase Associated Lipocalin (NGAL) serum level has close link to endothelial damage. This study aim to assess NGAL serum level based on preeclampsia classification.

**Methods:** This is a cross sectional study with 57 participants. Objects of this study were patients those have been diagnosed with non severe and severe preeclampsia by Obstetry and Gynecology Department of Dr. M. Djamil Padang Hospital and a number of hospitals in Padang from October 2016 to April 2017. Level of NGAL was measured by enzyme linked immunosorbent assay (ELISA). Data were analyzed by t test and considered significant if  $p < 0.05$ .

**Results:** Mean of NGAL level in non severe preeclampsia was 264.114,12(17.212,7) pg/ml and severe preeclampsia was 302.127,42(30.929,31) pg/ml. There was a significant difference in NGAL level mean based on preeclampsia classification by t test and higher NGAL level was seen in severre preeclampsia ( $p=0.0001$ )

**Conclusion:** There was significant difference in NGAL level based on preeclampsia classification by t test and higher level mean of NGAL was seen on severe preeclampsia.

**Keywords:** Neutrophil Gelatinase Associated Lipocalin, preeclampsia.

