

# Titik Potong Rasio Hitung Netrofil Dan Limfosit Untuk Memprediksi Derajat Steatosis Dan Fibrosis Penyakit Perlemakan Hati Non Alkoholik = Diagnostic Value of Neutrophil to Lymphocyte Ratio in Non-Alcoholic Fatty Liver Disease evaluated using Transient Elastography (TE) with Controlled Attenuated Parameter (CAP)

Yoppi Kencana, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20484696&lokasi=lokal>

---

## Abstrak

**Latar Belakang :** Non-alcoholic fatty liver disease (NAFLD) adalah penyakit hati kronik yang ditandai dengan akumulasi lemak berlebihan di hati. Elastografi Transien (ET) dan metode Controlled Attenuation Parameter (CAP) merupakan metode pemeriksaan non-invasif untuk menilai derajat fibrosis dan steatosis, namun tidak tersedia di seluruh rumah sakit di Indonesia. Rasio Neutrofil Limfosit (RNL) merupakan penanda peradangan sederhana yang berpotensi memprediksi luaran penyakit.

**Tujuan :** Mengetahui nilai diagnostik RNL sebagai indikator derajat keparahan steatosis dan fibrosis NAFLD.

**Metode :** Penelitian ini adalah studi potong lintang menggunakan data sekunder dari data rekam medis tahun 2016-2018. Analisis statistik deskriptif dan analitik berupa uji korelasi, Receiver Operating Curve (ROC) dan Area Under The Curve (AUC) dipakai untuk mengetahui luaran studi.

**Hasil :** Dari 106 subjek penelitian, kebanyakan pasien adalah perempuan (62,3%) berusia rata-rata 57,29 tahun dan menderita sindrom metabolik (77,4%). Sebagian besar pasien memiliki derajat steatosis sedang-berat (66%) dengan rerata ET 6,14 (2,8-18,2). Terdapat korelasi antara nilai CAP ( $r=0,648$ ;  $p<0,001$ ) dan ET ( $r=0,621$ ;  $p<0,001$ ) dengan RNL. Penggunaan RNL untuk menilai derajat steatosis sedang-berat memiliki titik potong 1,775 dengan sensitivitas, spesifisitas, NDP dan NDN sebesar 81,5%, 80,6%, 89,1%, dan 69,1%; titik potong 2,150 untuk menilai fibrosis signifikan dengan sensitivitas, spesifisitas, NDP dan NDN berurutan sebesar 92.3 %, 87.5%, 70.6%, dan 97.2%.

**Simpulan :** RNL memiliki korelasi positif terhadap derajat steatosis dan fibrosis dengan sensitivitas dan spesifisitas yang tinggi.

.....**Introduction :** Non-alcoholic fatty liver disease (NAFLD) is a chronic inflammatory disease with excessive fat accumulation in the liver. Transient Elastography (TE) with Controlled Attenuation Parameter (CAP) is a device and method to examine the degree of fibrosis and steatosis. However, this device is not widely available across Indonesia. Neutrophil and Lymphocyte Ratio (NLR) is a simple marker for inflammation which has a potency to predict disease outcome.

**Objective :** To know the diagnostic value of RNL as the indicator of steatosis and fibrosis severity.

**Methods :** This was a cross-sectional study using secondary data from the medical record, starting from 2016-2018 with the respective inclusion and exclusion criteria. A descriptive and analytic statistic, including correlation test, Receiver Operating Curve (ROC) and Area Under The

Curve (AUC) were done to know the outcome of the study.

**Result:** Out of 106 subjects, 62.3% patients were women with aged mean 57.29 years old and 77.4% had metabolic syndrome. Most patients had average-severe steatosis degree (66%) with the mean of ET mean 6.14 (2.8-18.2). There was a positive correlation between CAP and TE compared with NLR with  $r = 0.647$  ( $p < 0.001$ ) and  $r = 0.621$  ( $p < 0.001$ ) respectively. The use of NLR to assess moderate-severe steatosis has a cutoff point of 1.775 with sensitivity, specificity, PPV and NPV of 81,5%, 80,6%, 89,1%, and 69,1%; cutoff point 2,150 to assess significant fibrosis with sensitivity, specificity, PPV and NPV of 92.3 %, 87.5%, 70.6%, 97.2% respectively.

**Conclusion :** NLR has a positive correlation with the degree of steatosis and fibrosis with high sensitivity and specificity.