

**HUBUNGAN RASIO NETROFIL DIBANDING LIMFOSIT DENGAN
RESPON KLINIS SETELAH KEMOTERAPI NEOADJUVAN REGIMEN
CAF PADA KANKER PAYUDARA LANJUT LOKAL**

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ABSTRAK

Latar Belakang: Kanker payudara merupakan keganasan yang paling sering didiagnosa dan penyebab tersering kematian wanita yang disebabkan oleh kanker. Pada tahun 2009 didapatkan 207 penderita baru kanker payudara dalam 1 tahun di RS Dr. Soetomo Surabaya. Lebih dari 70% penderita yang datang sudah dalam stadium III dan IV. Pasien dengan *locally advanced breast cancer (LABC)* memerlukan kemoterapi neoadjuvan untuk mengurangi ukuran tumor. Agar kemoterapi dapat diberikan kepada pasien yang tepat, dibutuhkan prediktif dan prognostik marker pada kanker payudara. Rasio netrofil dengan limfosit telah digunakan sebagai penanda sistematik dari inflamasi.

Tujuan Penelitian: Mengetahui hubungan antara rasio netrofil dibanding limfosit yang rendah dalam darah dan respon klinis setelah kemoterapi neoadjuvan regimen CAF pada pasien kanker payudara lanjut lokal.

Metode Penelitian: Penelitian ini merupakan uji asosiatif menggunakan desain penelitian observasional analitik bersifat *cohort* (longitudinal prospektif).

Hasil Penelitian: Pada penelitian ini didapatkan 25 pasien yang terdiri dari usia <35 tahun sebanyak 2 orang (8%), usia 36-52 tahun 11 orang (44%), dan >52 tahun 12 orang (48%). Dari penelitian ini, sebanyak 3 orang stadium IIIA (12%), stadium IIIB 21 orang (84%), dan stadium IIIC 1 orang (4%). Rerata nilai rasio netrofil dibanding limfosit pada penelitian ini 2,6. Nilai rasio netrofil dibanding limfosit setelah kemoterapi rendah sebanyak 10 orang (40%) dan rasio netrofil dibanding limfosit tinggi sebanyak 15 orang (60%). Respons klinis negatif setelah kemoterapi didapatkan pada 14 pasien (56%) dan respons klinis positif 11 pasien (44%). Terdapat perbedaan bermakna antara nilai rasio netrofil dibanding limfosit dan respon klinis kemoterapi ($p = 0,049$, OR = 6,417).

Kesimpulan: Terdapat hubungan antara nilai netrofil dibanding limfosit dengan kanker payudara lanjut lokal yang menjalani kemoterapi neoadjuvan CAF sebanyak tiga siklus dengan respon klinis pasca kemoterapi secara signifikan. Wanita yang mengalami kanker payudara stadium lanjut dengan rasio netrofil dibanding limfosit yang tinggi mempunyai respon klinis enam kali lebih jelek daripada rasio netrofil dibanding limfosit yang rendah

Keyword: *locally advanced breast cancer, rasio netrofil dibanding limfosit, kemoterapi neoadjuvan CAF*

**RELATIONSHIP BETWEEN NEUTROPHIL LYMPHOCYTE RATIO
AND CLINICAL RESPONSE AFTER NEOADJUVANT
CHEMOTHERAPY WITH CAF REGIMENT IN LOCALLY ADVANCED
BREAST CANCER**

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ABSTRACT

Background: breast cancer is a kind of malignancy that is commonly diagnosed and the most common cause of death amongst women all around the world. In 2009, there were 207 new cases in a year in Dr. Soetomo Hospital and more than 70% of the cases had already been at stage III and IV. Patients with locally advanced breast cancer (LABC) need an adjuvant chemotherapy to shrink the size of the tumor. Predictive and prognostic marker is needed in order to make sure the patients get their exact chemotherapy. Neutrophil lymphocyte ratio has been used as systemic inflammation biomarker.

Objective: to know relationship between low level neutrophyl lymphocyte ratio in blood and clinical responses after neoadjuvant chemotherapy with CAF regiment in locally advanced breast cancer.

Methods: associative test using a cohort (longitudinal prospective) analytic observational research design.

Results: in this study we get 25 patients with 2 subject were aged <35 years old (8%) , 11 subjects were aged 36-52 years old (44%) and 12 subjects were aged >52 years old (48%). 3 subjects were in stage IIIA (12%) and stage IIIB in 21 subjects (84%) and 1 subject was in stage IIIC (4%). Mean level neutrophyl lymphocyte ratio was 2,6. Neutrophyl lymphocyte ratio after chemotherapy was found low in 10 subjects (40%), and high ratio was found in 15 subjects (60%). Negative clinical response after chemotherapy was found in 14 subjects (56%) and positive response was found in 11 subjects (44%). There is significant differentiation between neutrophyl lymphocyte ratio and chemotherapy clinical response (p = 0,049, OR = 6,417).

Conclusion: there is significant relationship between neutrophyl lymphocyte ration in locally advanced breast cancer during three cycles neoadjuvant chemotherapy with CAF regiment. Women who have advanced breast cancer with a high neutrophil lymphocyte ratio have six times worse clinical response than the ones with low neutrophil lymphocyte ratio.

Keywords: *locally advanced breast cancer, neutrophyl lymphocyte ratio, neoadjuvant chemotherapy CAF*