

**HUBUNGAN ANTARA KADAR VITAMIN D DARAH DAN
RESPON KLINIS KEMOTERAPI NEOADJUVAN PADA
WANITA PASCA MENOPAUSE DENGAN *LOCALLY
ADVANCED BREAST CANCER*
DI RSUD DR. SOETOMO SURABAYA**

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Abstrak

Pendahuluan: Kanker payudara merupakan keganasan dengan prevalensi terbanyak untuk wanita di Indonesia. Masalah tidak hanya muncul dari segi prevalensi, melainkan juga dari segi morbiditas, mortalitas dan pengobatan. Proporsi pasien kanker payudara yang berobat di Indonesia sebesar 70% datang berobat dengan stadium lanjut (stadium III dan IV) dan membutuhkan terapi sistemik misal kemoterapi. Namun hasil evaluasi kemoterapi terkadang belum mencapai tujuan. Penelitian deskriptif di RSUD Dr. Soetomo Surabaya tahun 2011-2013 menunjukkan bahwa 52% pasien dengan kemoterapi neoadjuvan mengalami respon *stable disease*. Dasar ini berimplikasi pada banyaknya penelitian yang membahas faktor prediktor kemoterapi. Vitamin D merupakan salah satu antioksidan yang memiliki aktivitas anti-kanker dan meningkatkan potensiasi dari agen kemoterapi.

Metode: Penelitian analitik observasional ini bersifat kohort longitudinal prospektif dengan tujuan untuk mengetahui apakah terdapat hubungan antara kadar vitamin D dalam darah dan respon klinis pada pasien wanita pasca menopause dengan kanker payudara stadium lanjut yang menjalani kemoterapi neoadjuvan lini pertama CAF. Subjek penelitian sebanyak 30 pasien dipilih secara *consecutive sampling*. Subjek kemudian menjalani pemeriksaan klinis dan kadar vitamin D dalam darah sebelum kemoterapi neoadjuvan siklus pertama. Siklus akan dilanjutkan sebanyak tiga kali dan akan dilakukan pengukuran kadar vitamin D dalam darah dan respon klinis setelah kemoterapi ketiga.

Hasil: Respon klinis pasca kemoterapi pada penelitian ini sebanyak 1(3,3%) *progressive disease*, 17(56,7%) *stable disease*, dan 12(40%) *partial response*. Hasil penelitian ini menunjukkan terdapat hubungan yang bermakna antara kadar vitamin D pre kemoterapi dengan respon klinis pasca kemoterapi neoadjuvan ($p=0,004$; $OR=10,5$ (CI: 1,889 - 58,359)). Hasil penelitian juga menunjukkan perbedaan yang bermakna antara kadar vitamin D pre dengan pasca kemoterapi ($p=0,016$).

Kesimpulan: Terdapat hubungan antara kadar vitamin D dalam darah dan respon klinis pada pasien wanita pasca menopause dengan kanker payudara lanjut lokal yang menjalani kemoterapi neoadjuvan CAF sebanyak tiga siklus secara signifikan.

Kata kunci : *locally advanced breast cancer, vitamin D, neoadjuvant chemotherapy, menopause*

**THE RELATIONSHIP BETWEEN VITAMIN D SERUM
LEVEL AND CLINICAL RESPONSE OF NEOADJUVANT
CHEMOTHERAPY ON POST MENOPAUSAL WOMEN WITH
LOCALLY ADVANCED BREAST CANCER AT
DR. SOETOMO GENERAL HOSPITAL SURABAYA**

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ABSTRACT

Background: Breast cancer is the most prevalent malignancy for Indonesian women. The arising problems are also from the high figure of morbidity, mortality and treatment burden. Almost 70% Indonesian breast cancer patients are diagnosed with advanced stadium who are in need systemic therapy such as chemotherapy. Descriptive study at Dr. Soetomo Surabaya between 2011 and 2013 showed that 52% of patients with neo- adjuvant chemotherapy responded poorly. This data has been implicated in many researches pertaining to chemotherapy predictive factors. Vitamin D is one form of antioxidant which induces anti-cancer activity and potentiates chemotherapy agent.

Method: This is a prospective longitudinal cohort study with the aim of understanding the relationship between vitamin D serum level and clinical response of neo-adjuvant chemotherapy on postmenopausal women with locally advanced breast cancer who are treated with CAF first-line neoadjuvant chemotherapy. 30 subjects are chosen consecutively. Clinical staging and vitamin D serum level are measured before undergoing first cycle of chemotherapy. Clinical response and vitamin D serum level are checked again after third cycle.

Result: The clinical response in this study are categorized as 1 (3.3%) with progressive disease, 17 (56.7%) with stable disease, and 12 (40%) with partial response. The result displayed a significant association between pre-chemotherapy vitamin D serum level and clinical response post-chemotherapy clinical response ($p = 0.004$; OR = 10.5 (CI: 1,889-58,359)). This study also analyzed a significant difference in vitamin D levels between pre- and post-chemotherapy ($p = 0.016$).

Conclusion: There is a significant relationship between vitamin D serum level and clinical response of postmenopausal female patients with locally advanced breast cancer whom are treated with three cycle of CAF neo-adjuvant chemotherapy.

Keyword: *locally advanced breast cancer, vitamin D, neo-adjuvant chemotherapy, menopause*