

HUBUNGAN ANTARA USIA DAN UKURAN TUMOR DENGAN SUBTIPE MOLEKULER KARSINOMA PAYUDARA DI RSUP DR. SARDJITO YOGYAKARTA

INTISARI

Latar Belakang. Karsinoma payudara bersifat heterogen, memiliki latar belakang biologis, prognosis dan respon terapi bervariasi. Klasifikasi molekuler karsinoma payudara terdiri dari empat subtipe yaitu Luminal A, Luminal B, HER2+ dan *Triple Negative/Basal-like*. Faktor klinis penentu prognosis karsinoma payudara antara lain usia dan ukuran tumor. Studi di Indonesia mengenai subtipe molekuler karsinoma payudara dengan lima penanda molekuler masih terbatas.

Tujuan. Mengetahui profil subtipe molekuler karsinoma payudara serta hubungannya dengan usia dan ukuran tumor

Metode. Studi potong lintang retrospektif pada 248 jaringan blok parafin karsinoma payudara invasif yang diperoleh dari RSUP.Dr. Sardjito tahun 2012-2015. Pengecatan imunohistokimia dengan antibodi anti ER, PR, HER2, Ki-67 dan CK 5/6 dilakukan untuk menentukan subtipe. Hubungan antara usia dan ukuran tumor dianalisis dengan uji *Chi Square*.

Hasil. Frekuensi subtipe Luminal A, Luminal B, HER2+ dan *Triple-Negative* berturut-turut adalah 41,1%, 13,7%, 19,8% dan 25,4%. Frekuensi *basal-like* sebesar 58,7% dan *non basal-like* sebesar 41,2%. Mayoritas penderita berusia > 50 tahun. Usia < 40 tahun sebagian besar merupakan *Triple-Negative* (31,3%) sedangkan usia > 50 tahun sebagian besar merupakan Luminal A (38,3%). Ukuran tumor < 2 cm, 2-5 cm dan > 5 cm sebagian besar merupakan Luminal A. Usia ($p = 0,070$) dan ukuran tumor ($p = 0,474$) tidak berhubungan dengan subtipe molekuler karsinoma payudara.

Kesimpulan. Frekuensi subtipe molekuler karsinoma payudara tertinggi adalah Luminal A, *Triple-Negative*, HER2+ dan terendah adalah Luminal B. Tidak terdapat hubungan antara usia dan ukuran tumor dengan subtipe.

Kata kunci. Subtipe molekuler, karsinoma payudara, usia, ukuran tumor

**ASSOCIATION BETWEEN AGE AND TUMOR SIZE
WITH MOLECULAR SUBTYPES OF BREAST CARCINOMA
IN RSUP. Dr. SARDJITO YOGYAKARTA**

ABSTRACT

Background. Breast carcinoma (BC) is a heterogeneous disease that has different biological behaviour, prognosis and response to therapy. BC was classified into Luminal A, Luminal B, HER2+ and Triple Negative/Basal-like. Clinical factors that determined the BC prognosis were age and tumor size. The study of Molecular subtypes of Indonesian BC using five molecular biomarkers is still limited.

Objective. to evaluate the profile of molecular subtypes and their association with age and tumor size.

Methods. A retrospective cross-sectional study of 248 paraffin-embedded tissues of invasive BC from Dr. Sardjito General Hospital Yogyakarta between 2012-2015 was performed. Immunohistochemistry staining with antibody monoclonal anti- ER, PR, HER2, Ki-67 and CK 5/6 were used to classify molecular subtypes. Their association with age and tumor size were analyzed using *Chi Square Test*.

Results. The Luminal A was the common subtype in Indonesian BC (41,1%), followed by Triple Negative/Basal-like (25,4%) and HER2+ (19,8%). Luminal B subtype was 13,7% from the total cases. Frequency of basal-like was 58,7% and non basal-like was 41,2%. Age < 40 years old was commonly found in Triple-Negative, meanwhile age > 50 years old was commonly found in Luminal A. Patient with tumor size < 2 cm, 2-5 cm and > 5 cm were commonly found in Luminal A. Age ($p = 0,070$) and tumor size ($p = 0,474$) were not associated with molecular subtypes of BC.

Conclusions. The highest frequency of molecular subtypes of BC was Luminal A, followed by Triple-Negative, HER2+ and the lowest frequency is Luminal B. The majority of Triple-Negative subtype was basal-like. There were no association between age and tumor size with molecular subtypes of BC.

Key words. molecular sybtypes, breast carcinoma, age, tumor size