

# Hubungan ukuran tumor dan derajat histopatologi dengan metastasis tulang pada pasien kanker payudara berusia dibawah 40 tahun di RS Kanker Dharmais = Association of tumor size and histopatology grade with bone metastases in breast cancer under 40 years old in Dharmais Cancer Hospital

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## Abstrak

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Tujuan: Menentukan hubungan ukuran tumor dan derajat histopatologi dengan metastasis tulang pada pasien kanker payudara berusia dibawah 40 tahun di RS Kanker Dharmais, membantu meningkatkan kualitas tatalaksana bagi klinisi.

Metode: Analisa menggunakan data sekunder. Hasil ukuran tumor dikelompokkan menjadi 5 cm dan > 5 cm berdasarkan AJCC TNM staging system diperoleh melalui pencitraan radiologi payudara dari sistem PACS dan derajat histopatologi menurut derajat histopatologi Nottingham kombinasi diperoleh dari hasil ekspertise patologi anatomi, serta evaluasi metastasis tulang menggunakan skintigrafi tulang berdasarkan total populasi pasien kanker payudara berusia dibawah 40 tahun.

Hasil: Jumlah subyek penelitian 32 perempuan kanker payudara berusia dibawah 40 tahun periode Januari 2011 hingga Juli 2014 di RS Kanker Dharmais. Tidak ada hubungan yang bermakna antara ukuran tumor dengan metastasis tulang ( $P=0,715$  (Fisher exact test),  $OR=1,71$  (0,32-9,36)). Terdapat hubungan yang bermakna antara derajat histopatologi dengan metastasis tulang ( $P=0,010$ ,  $P < 0,05$ ). Dari 10 subyek derajat histopatologi tinggi, ternyata semua subyek mengalami metastasis tulang negatif. Pada subyek dengan derajat histopatologi sedang didapatkan 8 dari 15 subyek yang mengalami metastasis tulang. Pada subyek penelitian dengan derajat histopatologi rendah didapatkan 6 dari 7 subyek mengalami metastasis tulang negatif. Rerata usia 33,2 tahun dan simpang baku 3,7 tahun memiliki kejadian metastasis tulang lebih tinggi ( $P=0,024$ ). Terdapat data tambahan dan ditemukan hubungan yang bermakna antara Cerb-b2/HER-2 positif dengan metastasis tulang ( $P=0,049$  ( $P < 0,05$ ), Odds Ratio=5,67 (0,84 ? 43,16)). Prevalensi metastasis tulang yaitu sebesar 28,1%.

Kesimpulan: Pasien kanker payudara berusia dibawah 40 tahun dengan ukuran tumor besar tidak memiliki kejadian metastasis tulang lebih tinggi. Pasien dengan derajat histopatologi tinggi tidak memiliki kejadian metastasis tulang lebih tinggi, namun ditemukan angka kejadian metastasis tulang lebih tinggi pada derajat histopatologi sedang. Terdapat dua faktor lain yang juga mempunyai hubungan dengan kejadian metastasis tulang yaitu usia dan Cerb-br/HER-2. Rerata usia 33,2 tahun dengan simpang baku 3,7 tahun pada pasien kanker payudara berusia di bawah 40 tahun memiliki kejadian metastasis tulang lebih tinggi. Cerb-b2/HER-2 positif pada pasien kanker payudara berusia di bawah 40 tahun memiliki kejadian metastasis tulang lebih tinggi dengan resiko kejadian sebesar 5,67 kali. Prevalensi metastasis tulang cukup tinggi pada pasien kanker payudara berusia dibawah 40 tahun yaitu sebesar 28,1%.

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<b>ABSTRACT</b><br>

Objective: Determine the relationship of tumor size and histopathology grade with bone metastases in breast

cancer patients under 40 years old in Dharmais Cancer Hospital, to help improve the quality of management of the clinician.

Methods: Analysis using secondary data. The results of tumor size are grouped into  $\leq 5$  cm and  $> 5$  cm based on the AJCC TNM staging system from PACS system, obtained through breast radiology imaging and histopathologic grade according to histopathological Nottingham combination obtained from the anatomical pathology expertise, the evaluation of bone metastases using bone scintigraphy. These analyses are based on the total population of breast cancer patients under 40 years old.

Results: The study subjects are 32 female breast cancer under 40 years old from January 2011 to July 2014 Dharmais Cancer Hospital. There is no significant relationship between the tumor size with bone metastasis ( $P = 0.715$  (Fisher exact test), OR = 1.71 (0.32 to 9.36)). There is a significant relationship between the histopathology grade with bone metastases ( $P = 0.010$ ,  $P < 0.05$ ). From 10 subjects with high grade histopathology, all subjects have no bone metastases. In subjects with moderate grade histopathology, 8 of 15 subjects have bone metastases. In subjects with a low grade histopathology showed 6 of 7 subjects have no bone metastases. The mean age of 33.2 years and standard deviations of 3.7 years had a higher incidence of bone metastases ( $P = 0.024$ ). There are additional data and found a significant association between Cerb-b2 / HER-2 positive patients with bone metastases ( $P = 0.049$  ( $P < 0.05$ ), odds ratio = 5.67 (0.84 to 43.16)). The prevalence bone metastasis is equal to 28.1%.

Conclusion: Breast cancer patients under 40 years with large tumor size did not have a higher incidence of bone metastases. Patients with a high grade histopathology do not have higher incidence of bone metastases, but found the incidence of bone metastases was higher in moderate grade histopathology. There are two other factors that also have a relationship with the incidence of bone metastases, that are age and Cerb-br / HER-2. The mean age of 33.2 years with standard deviations of 3.7 years in patients with breast cancer under 40 years old have a higher incidence of bone metastases. Cerb-b2 / HER-2 positive breast cancer patients under 40 years old have a higher incidence of bone metastases with the risk of occurrence 5.67 times. The prevalence of bone metastases in breast cancer patients under the age of 40 years is quite high equal to 28.1%.;Objective: Determine the relationship of tumor size and histopathology grade with bone metastases in breast cancer patients under 40 years old in Dharmais Cancer Hospital, to help improve the quality of management of the clinician.

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