

EXPRESSION OF NGX-6 MESSENGER RNA IN THE STATUS OF METASTASIS AND NON METASTASIS INVASIVE DUCTAL CARCINOMA

ABSTRACT

Background

Breast carcinoma is the second most case of cancer that occur in the world and based on the recent research breast carcinoma occupy the rank fifth in mortality rate. Breast carcinoma often associated with metastasis. Stage from breast carcinoma is measured from malignancies grade and stage that refer to the size and the spread of carcinoma... Carcinoma breast is related with angiogenesis that the process is not balance with inhibitory and regulatory factor, in which balancing factor is managed by suppressor genes. Several studies published revealed that NGX-6 is considered as tumor suppressor gene in metastasis nasopharyngeal carcinoma. Recent studies showed the expression of NGX-6 negative group were superiorly than NGX-6 positive group in breast carcinoma using immunochemistry method. Therefore, the study that investigates the level of NGX-6 expression quantitatively is widely opened to perform.

Objective

To identify the expression of NGX-6 messenger RNA in breast carcinoma cell metastasis with non-metastasis in invasive ductal carcinoma.

Method

An observational study with descriptive research design is done using paraffin block of all types of thyroid carcinoma in patients that were diagnosed at 2015 in Department of Anatomical Pathology, Faculty of Medicine, Gadjah Mada University.

Result

From the data total subject with non-metastasis status (51%) is higher than metastasis (48%). Otherwise median of expression metastasis (46.71 times) is higher than non-metastasis expression (26.65 times). Statistically, there is no significant difference between metastasis NGX-6 expressions with carcinoma breast ($p= 0.069$).

Conclusion

Expression of NGX-6 mRNA in metastasis were higher than non-metastasis which is lead to no significant difference data due to other factor such as epigenetic factor, dna methylation and mutation.

Keywords

Indonesia, breast cancer, NGX-6, NGX-6 mRNA

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INTISARI

Latarbelakang

Kanker payudara merupakan kasus kanker terbanyak ke-2 yang terjadi di dunia dan berdasarkan penelitian terkini kanker payudara berada di urutan ke-5 berdasarkan tingkat mortalitas. Kanker payudara sering dikaitkan dengan metastasis. Tingkatan kanker payudara diukur dari stadium keganasan, ukuran dan penyebarannya. Kanker payudara berkaitan dengan angiogenesis dimana terjadi ketidakseimbangan antara faktor penghambat dan pertumbuhan yang diatur oleh gen suppressor. Beberapa studi menjelaskan bahwa NGX-6 diakui sebagai tumor suppressor gen pada kanker nasopharing. Beberapa studi menunjukkan bahwa ekspresi pada grup NGX-6 negative lebih superior dibanding NGX-6 positive menggunakan metode immunochemistry. Maka dari itu studi mengenai level dari NGX-6 secara kuantitatif sangat terbuka untuk di lakukan,

Tujuan

Untuk mengidentifikasi ekspresi dari NGX-6 messenger RNA pada sel kanker payudara yang metastasis dan non-metastasis pada invasive ductal carcinoma.

Metode

Penelitian ini menggunakan studi deskriptif observasional dengan metode cross sectional. Subjek penelitian adalah blok paraffin yang didapatkan pada 2016 di Yogyakarta. Penelitian dilakukan di departemen patologi anatomi Universitas Gadjah Mada.

Hasil

Didapatkan subject dengan non metastasis status (51%) lebih tinggi daripada metastasis (48%). Akan tetapi median dari metastasis (46.71 kali) lebih tinggi daripada non-metastasis (26.65 kali). Secara statistic, tidak ada perbedaan yang significant diantara hal tersebut ($p= 0.069$).

Kesimpulan

Ekspresi dari NGX-6 mRNA pada yang metastasis lebih tinggi daripada yang non-metastasis dimana hal ini disebabkan oleh faktor lainnya seperti epigenetic factor, dna methylation and mutation.

Kata Kunci

Indonesia, kanker payudara, NGX-6, NGX-6 mRNA.