CLINICOPATHOLOGIC FEATURES AND SUBCLASSIFICATION OF BREAST CANCER IN WOMEN ≤40 YEARS OF AGE ACCORDING TO IMMUNOHISTOCHEMICAL MARKERS

Safira Alya Dhiyani[1], Ery Kus Dwianingsih[2], Sumadi Lukman Anwar[3], Irianiwati Widodo[2]

[1]International Undergraduate Program Medical School Faculty of Medicine Universitas Gadjah Mada Yogyakarta Indonesia
[2]Department of Pathology Faculty of Medicine Universitas Gadjah Mada Yogyakarta Indonesia
[3]General Surgery Residency Program Universitas Gadjah Mada Yogyakarta Indonesia

ABSTRACT

Background: Breast cancer (BC) cases in ≤40 year-old women are rare but they've been reported to have advanced clinicopathologic features. ER, PR, and HER2 used in immunohistochemical (IHC) examination to identify BC molecular subtypes (Luminal A, Luminal B, HER2 enriched, and triple-negative) by scoring their expression, have a role in BC carcinogenesis. Thus molecular subtype may be associated with clinicopathologic features.

Objective: To find out the clinicopathologic features of BC in women ≤40 years of age and their association with molecular subtypes.

Method: Cross-sectional design was applied. Data was collected from the medical records of ≤40 year-old BC patients diagnosed in dr. Sardjito Hospital between January 2012 and December 2015. Fisher's exact test was used for hypothesis testing.

Result: Data from 47 young BC patients' medical records was collected. A total of 61.7% of patients had tumor size >5cm, 74.5% had lymph node infiltration, 29.8% had metastasis to distant organ, and 57.4% were already in late stage. Grade III tumors comprised 72.3% of the cases. Invasive ductal carcinoma, NST was the most common pathologic diagnosis (87.2%). The most common molecular subtype was Luminal A (31.9%), followed by HER2 enriched (29.8%), triple-negative (25.5%), and Luminal B (12.8%). No association (p>0.05) between molecular subtype and any of the clinicopathologic features was found.

Conclusion: BC patients aged ≤40 years tend to be diagnosed with advanced clinicopathologic features but they're not associated with molecular subtypes.

Keywords: breast cancer, immunohistochemical markers, molecular subtype, clinicopathologic features, young women

FITUR KLINIKOPATOLOGIS DAN SUBKLASIFIKASI KANKER PAYUDARA PADA WANITA USIA ≤40 TAHUN MENURUT MARKER IMUNOHISTOKIMIA

Safira Alya Dhiyani[1], Ery Kus Dwianingsih[2], Sumadi Lukman Anwar[2], Irianiwati Widodo[2]
[1]Kelas Internasional Pendidikan Dokter Fakultas Universitas Gadjah Mada Yogyakarta Indonesia
[2]Departmen Patologi Anatomi Fakultas Universitas Gadjah Mada Yogyakarta Indonesia
[3]Program Pendidikan Dokter Spesialis Bedah Universitas Gadjah Mada Yogyakarta Indonesia

INTISARI

Latar belakang: Kejadian kanker payudara (KP) pada wanita usia ≤40 tahun terhitung jarang namun kasus-kasunya dilaporkan memiliki fitur klinikopatologis lanjut. ER, PR, dan HER2 yang digunakan dalam pemeriksaan imunohistokimia (IHC) untuk mengidentifikasi subtipe molekuler KP (Luminal A, Luminal B, HER2 enriched, dan triple-negative) dengan menilai ekspresinya, memiliki peran dalam karsinogenesis KP. Maka, ada kemungkinan subtipe molekuler memiliki asosiasi dengan fitur klinikopatologis.

Tujuan: Mencari tahu fitur klinikopatologis KP pada wanita usia ≤40 tahun dan asosiasinya dengan subtipe molekuler.

Metode: Digunakan desain potong-lintang. Data diambil dari rekam medis pasien KP usia ≤40 tahun di RSUP dr. Sardjito yang terdiagnosis antara Januari 2012 dan Desember 2015. Fisher's exact test digunakan untuk uji hipotesis.

Hasil: Didapatkan data dari 47 pasien KP muda. Sejumlah 61.7% pasien memiliki ukuran tumor >5cm, 74.5% mengalami infiltrasi limfonodi, 29.8% mengalami metastasis, dan 57.4% sudah di stadium lanjut. Sejumlah 72.3% kasus memiliki tumor grade III. Duktal karsinoma invasif, NST merupakan diagnosis patologis paling umum (87.2%). Subtipe molekuler yang paling banyak adalah Luminal A (31.9%), diikuti oleh HER2 enriched (29.8%), triple-negative (25.5%), dan Luminal B (12.8%). Tidak ditemukan asosiasi (p>0.05) antara subtipe molekuler dan fitur klinikopatologis.

Kesimpulan: Pasien KP usia ≤40 tahun cenderung didiagnosis dengan fitur klinikopatologis lanjut namun tidak memiliki asosiasi dengan subtipe molekuler.

Kata kunci: kanker payudara, marker imunohistokimia, subtipe molekuler, fitur klinikopatologis, wanita muda