Ekspresi TP53 dan aktifitas proliferasi Ki-67 pada berbagai derajat klasifikasi Bartl di neoplasma sel plasma = The expression of TP53 and the proliferation activity Ki-67 at various degrees of Bartl's classification in plasma cell neoplasm

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Abstrak

[ABSTRAK
Latar belakang: Neoplasma sel plasma (NSP) adalah proliferasi sel plasma neoplastik yang tumbuh soliter menjadi plasmasitoma tulang soliter (PTS) dan plasmasitoma ekstrameduler (PEM) serta multipel (MM)). Saat ini perjalanan penyakit dari plasmasitoma menjadi MM sulit diprediksi. Bartl mengklasifikasikan derajat keganasan berdasarkan histomorfologik menjadi rendah, sedang dan tinggi. Penelitian ini bertujuan menggunakan klasifikasi Bartl untuk menilai perjalanan PTS dan PEM menjadi MM dihubungkan dengan ekspresi TP53 dan Ki-67.
Bahan dan cara: Pada 32 kasus NSP yang berasal dari PTS 14 kasus, PEM 5 kasus, maupun MM sebanyak 13 kasus, diklasifikasikan menjadi 3 kelompok derajat keganasan menurut Bartl yaitu derajat keganasan ringan, sedang dan tinggi. Selanjutnya dilakukan pulasan IHK TP53 dan Ki-67 pada seluruh kasus dan dihitung persentase positifitas.
Hasil: Berdasarkan derajat keganasan, derajat rendah ditemukan pada 10 (31,2%) MM, derajat sedang pada 5 (15,6%) PTS dan derajat tinggi pada 2 (6,2%) PTS dan PEM. Peningkatan ekspresi TP53 ditemukan pada derajat Bartl yaitu median derajat rendah 4%, derajat sedang 16%, dan derajat tinggi 10%. Terdapat perbedaan ekspresi TP53 yang bermakna antara derajat keganasan rendah dan sedang (p=0,004). Rerata indeks proliferasi Ki-67 pada derajat keganasan rendah 57%, derajat sedang 44,6%, dan derajat tinggi 32,6%. Tidak ditemukan perbedaan antara indeks proliferasi Ki-67 dengan derajat keganasan menurut Bartl (p=0,339). Tidak terdapat hubungan antara ekspresi TP53, Ki-67 dengan usia. Kesimpulan: Peningkatan ekspresi TP53 pada NSP sejalan dengan peningkatan derajat keganasan Bartl, terutama pada derajat rendah dan sedang. Klasifikasi Bartl ditambah dengan pulasan TP53 saja tidak cukup untuk memprediksi perkembangan PTS dan PEM menuju MM.
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ABSTRACT
Background: Plasma cell neoplasm (PCN) is a neoplastic plasma cells proliferation including solitary bone plasmacytoma (SBP) and extramedullary plasmacytoma (EMP) and multiple myeloma (MM). Until now the development of disease to MM is unpredictable. Bartl classifies the degrees of malignancy histomorphologically as low, intermediate and high. This research aims using Bartl's classification and expression of TP53 and Ki-67 to assess the development of SBP and EMP to MM.
Materials and methods: In 32 cases of PCN derived from 14 cases of SBP, 5 cases of EMP, and 13 MM case, then classified into 3 groups based on Bartl's degrees of malignancy as low, intermediate, and high. Furthermore all cases stained by IHC TP53 and Ki-67 and evaluated the percentage of positivity. Results: Bartl's low degree was found in 10 (31,2%) MM case, intermediate in 5 (15,6%) SBP and high in 2 (6,2%) SBP and EMP. TP53 expression, obtainable at 4% of low, 16% of intermediate, and 10% of high degree.

There is significant difference between TP53 expression in low and intermediate degree (p = 0,004). Mean proliferation index of Ki-67 is 57% in low, 44,6% in intermediate and 32,6% in high degree. There is no significant difference of Ki-67 proliferation indexes among the group (p = 0,339). There is no correlation between expressions TP53, Ki-67 and age.
Conclusion: Increasing expression TP53 is in line with Bartl's degrees of malignancy, especially on low and inter.;Background: Plasma cell neoplasm (PCN) is a neoplastic plasma cells proliferation including solitary bone plasmacytoma (SBP) and extramedullary plasmacytoma (EMP) and multiple myeloma (MM). Until now the development of disease to MM is unpredictable. Bartl classifies the degrees of malignancy histomorphologically as low, intermediate and high. This research aims using Bartl?s classification and expression of TP53 and Ki-67 to assess the development of SBP and EMP to MM.

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