

Ekspresi P53 pada derajat diferensiasi, stadium patologi dan sub tipe histologik karsinoma sel hati = P53 Expression at differentiation grade, tumor pathology stage and histologic subtype of hepatocellular carcinoma

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Abstrak

Latar Belakang: Karsinoma sel hati (KSH) adalah lesi neoplastik ganas pada hati tersering. Transformasi keganasan sel hati normal menjadi KSH melibatkan berbagai faktor seperti inflamasi dan perubahan genetik yang menyebabkan KSH menjadi sangat heterogen pada tingkat histologik dan molekular. Perbedaan fenotipe yang dipengaruhi berbagai perubahan molekular menghasilkan berbagai derajat diferensiasi, sub tipe histologik dan gambaran klinik yang berbeda dan sebagian berhubungan dengan prognosis pada KSH. Mutasi pada gen TP53 yang berfungsi menontrol proliferasi sel melalui perbaikan DNA, apoptosis, dan penuaan sel terbukti sebagai salah satu perubahan molekular tersering pada KSH dan sering dikaitkan dengan beberapa faktor risiko, derajat diferensiasi, sub tipe histologik tertentu dan prognosis. Penelitian ini bertujuan menginvestigasi ekspresi p53 pada derajat diferensiasi, sub tipe histologik dan stadium patologi tumor KSH.

Bahan dan cara: Penelitian dilakukan di Departemen Patologi Anatomi FKUI/RSCM, Jakarta terhadap 41 kasus KSH yang diperoleh seara reseksi. Sampel kasus diklasifikasikan berdasarkan kelompok derajat diferensiasi (WHO), sub tipe histologik dan stadium patologi tumor. Selanjutnya dilakukan pulasan imunohistokimia (IHK) protein 53 (p53) pada seluruh kasus dan dilakukan analisis untuk mengetahui ekspresi p53 pada variabel penelitian.

Hasil: Ekspresi p53 ditemukan pada 35 kasus (85%). Berdasarkan derajat diferensiasi, ekspresi p53 ditemukan paling banyak pada derajat diferensiasi sedang dan buruk, yaitu 21 dan 14 kasus (91% dan 93%). Ekspresi p53 berdasarkan stadium patologi tumor ditemukan paling banyak pada pT1b dan pT2, yaitu 8 dan 14 kasus (88% dan 93%). Berdasarkan sub tipe histologik, seluruh kasus macrotrabecular massive (MTM) menunjukkan ekspresi p53 (4 kasus, 100%), sub tipe clear cell (CC) terpulas pada 15 kasus (93%), klasik (CL) ditemukan 16 kasus (88%) dan tidak ditemukan ekspresi p53 pada seluruh kasus steatohepatitic (SH). Terdapat perbedaan rerata bermakna ekspresi p53 pada kelompok baik dan sedang ($p=0,011$), baik dan buruk ($p=0,015$) dan tidak terdapat perbedaan rerata bermakna antara kelompok sedang dan buruk ($p=0,339$). Tidak ditemukan perbedaan rerata bermakna ekspresi p53 pada seluruh kelompok stadium patologi tumor ($p=0,948$) dan sub tipe histologik ($p=0,076$).

Kesimpulan: Terdapat perbedaan bermakna ekspresi p53 pada KSH kelompok diferensiasi baik dan sedang serta baik dan buruk.

.....Background: Hepatocellular cell carcinoma (HCC) is the most common malignant neoplastic lesion of the liver. Malignant transformation of hepatocytes involves various factors such as inflammation and genetic causing HCC to be very heterogeneous at the histological and molecular level. Differences in phenotypes affected by various molecular changes produce different differentiation grade, histological subtype, clinical features and prognosis. TP53 as one of the most common molecular changes in HCC play an important role in cycle cell by controlling cell proliferation through DNA repair, apoptosis and cellular senescence,

associates with several risk factors such as certain differentiation grade, histologic subtypes, and prognosis. This current study aimed to investigate p53 expression at HCC's differentiation grade, tumor pathology stage and histologic subtype.

Materials and methods: The study was conducted at the Department of Anatomical Pathology FKUI / RSCM, Jakarta on 41 cases of resected HCC. Case samples are classified based on groups of differentiation grade (WHO), histologic subtypes and tumour pathology stage. Furthermore immunohistochemical (IHC) staining of protein 53 (p53) carry out in all cases and an analysis statistic was performed to evaluated the expression of p53.

Results: p53 expression was found in 35 cases (85%). Based on the differentiation grade, the expression of p53 was found mostly in the moderate and poor differentiation (91%, 21 cases and 93%, 14 cases). Based on tumour pathology stage, p53 expression was found mostly in pT1b and pT2, which were 8 and 14 cases (88% and 93%). Based on histologic subtypes, all macrotrabecular massive (MTM) cases showed p53 expression (4 cases, 100%), clear cell (CC) subtypes were in 15 cases (93%), classic (CL) 16 cases (88%) and negative expression was found in all cases of steatohepatic (SH). There were significant differences in mean expression of p53 in the well and moderate groups ($p = 0.011$), well and poor ($p = 0.015$) and there were no significant mean differences between the moderate and poor groups ($p = 0.339$). There were no significant mean differences in p53 expression in all groups of tumour pathology stages ($p = 0.948$) and histologic subtypes ($p = 0.076$).

Conclusion: There is significant difference mean of p53 expression in well and moderate as well as well and poor differentiation.