Perbedaan Ekspresi P53 pada Karsinoma Urotelial Kandung Kemih Derajat Rendah dan Derajat Tinggi serta Hubungannya dengan Stadium Tumor = P53 Expression in Low Grade and High Grade Urothelial Bladder Carcinoma and Its Association with Tumor Stage

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Abstrak

Latar belakang: Karsinoma urotelial merupakan keganasan kandung kemih tersering pada laki-laki. Faktor risikonya adalah merokok, pajanan bahan kimia, radiasi, infeksi Schistosoma hematobium. Mutasi p53 merupakan mutasi tersering pada karsinoma urotelial kandung kemih yang menyebabkan akumulasi protein p53 di inti dan terlihat dengan imunohistokimia. Tujuan penelitian adalah untuk melihat perbedaan ekspresi p53 pada karsinoma urotelial kandung kemih derajat rendah dan derajat tinggi serta hubungan ekspresi p53 dengan^{: "}stadium tumor. Bahan dan cara: Penelitian menggunakan desain potong lintang. Sampel terdiri atas 47 kasus yang terbagi menjadi 22 kasus karsinoma urotelial derajat rendah dan 25 kasus karsinoma urotelial derajat tinggi di Departemen Patologi Anatomik Fakultas Kedokteran Universitas Indonesia/Rumah Sakit Cipto Mangunkusumo (FKUI/RSCM) tahun 2009-2017. Dilakukan pulasan imunohistokimia p53 dengan menggunakan cut off positif 20% berdasarkan penelitian Thakur et al, Ong et al, dan Saint et al. Hasil: Ekspresi p53 positif pada 33 sampel (70,21%), terbanyak pada karsinoma urotelial derajat tinggi 20 kasus (80%), sedangkan pada karsinoma urotelial derajat rendah terdapat 13 kasus (59,1%). Sebanyak 22 kasus (68,8%) Nonmuscle invasive bladder cancer dan 11 kasus (73,3%) Muscle invasive bladder cancer menunjukkan ekspresi positif. Ekspresi p53 cenderung lebih banyak ditemukan pada karsinoma urotelial derajat tinggi dan stadium tinggi. Kesimpulan: Tidak ada perbedaan ekspresi p53 pada karsinoma urotelial kandung kemih derajat rendah dan derajat tinggi. Tidak ada hubungan antara ekspresi p53 dengan stadium tumor.
Kata kunci: Karsinoma urotelial, kandung kemih, p53, imunohistokimia.
.....Background : Urothelial carcinoma is the most common malignancy in the bladder and mainly occurs in older men. Risk factors for bladder cancer include smoking, exposure to chemicals, radiation and schistosoma hematobium infection. P53 is a tumor suppressor gene that is involved in the cell cycle and plays a role in the occurrence of apoptosis in response to DNA damage. P53 gene mutation is one of the most common genetic changes in urothelial bladder carcinoma. The p53 gene mutation will cause accumulation of p53 protein in the nuclei which can be detected through immunohistochemical examination. The aim of this study is to see differences of p53 expression in low grade and high grade urothelial carcinoma and to see the association of p53 expression with tumor stage. Material and method : This study uses a cross sectional study design. The sample consisted of 47 cases of urothelial bladder carcinoma divided into 22 cases of low grade urotelial carcinoma and 25 cases of high grade urotelial carcinoma originating from the archives of the Anatomical Pathology Department Faculty Medicine of Universitas Indonesia/Cipto Mangunkusumo Hospital (FKUI/ RSCM) in 2009-2017. The study was carried out by p53 immunohistochemical examination and assessment of p53 expression using a percentage with a positive cut off value of 20%. Result : This study obtained positive p53 expression in 33 samples from 47 samples studied (70,21%). Most are found in high grade urothelial carcinoma as many as 20 cases (80%). Whereas in

low grade urothelial carcinoma there are 13 cases (59,1%) with positive p53 expression. As many as 22 cases (68,8%) of Non muscle invasive bladder cancer (NMIBC) and 11 cases (73,3%) of Muscle invasive bladder cancer (MIBC) showed positive p53 expression. There was no difference between p53 expression in low grade and high grade bladder urothelial carcinoma (p=0,118). This study also showed no association between p53 expression with tumor stage (p=1,000). Conclusion : P53 expression was not significantly different with tumor grade. P53 expression was not significantly associated with the tumor stage.