

عنوان مقاله:

Levels of APE λ Repair Gene and CLEC ϵ M in Lung Cancer Patients Receiving Cisplatin Chemotherapy

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خلاصه مقاله:

This study aimed to detect the levels of apurinic/aprimidinic endonuclease λ (APE λ) gene expression and C-type lectin domain family ϵ member M (CLEC ϵ M) and their association with cisplatin chemotherapy in lung cancer patients. Overall, 105 individuals who attended the Al-Amal National Hospital for Cancer Management, Baghdad, Iraq, were enrolled in the study and divided into three equal groups. The groups included the patients newly diagnosed with lung cancer, cancer patients who received cisplatin, and the healthy control group. All study groups were subjected to the sampling of the venous blood for molecular analysis by real-time polymerase chain reaction (RT-PCR) to detect the APE λ gene and enzyme-linked immunosorbent assay (ELISA) for serological testing to measure the concentration of CLEC ϵ M protein. Significantly, the values of both cancer groups were higher than those reported in the control group. The relative index revealed a significant difference in the mean fold change level of APE λ in the newly diagnosed group (3 fold) and cisplatin therapy patients group (2 fold), compared to the control group ($P=0.005$). No significant differences were detected between the two cancer groups in terms of fold change mean of expression, demographic characteristics, and cancer histological type. Regarding human CLEC ϵ M protein level, cases receiving cisplatin (139.2 ± 25.9) and newly diagnosed patients (331.0 ± 38.1) had a highly significant difference with the control group (100.2 ± 47.5 , $P < 0.001$). There was no significant difference between the concentration level of CLEC ϵ M and all parameters in demographic characteristics and cancer histological type. This was the first study to demonstrate that higher expression levels of new APE λ , CLEC ϵ M, and glutathione, especially after chemotherapy, are beneficial as diagnostic and prognostic markers for resistance to platinum chemotherapy in Iraqi lung cancer patients.

کلمات کلیدی:

Apurinic/Apyrimidinic Endonuclease λ , Cisplatin, C-Type Lectin Domain family ϵ Member M, Platinum chemotherapy

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