

عنوان مقاله:

Does the Chemotherapy Protocol Affect CXCL12/CXCR4 Axes in Acute Myeloid Leukemia Patients with Monocytic
?Differentiation

محل انتشار:

مجله سرطان خاورمیانه، دوره 13، شماره 1 (سال: 1401)

تعداد صفحات اصل مقاله: 10

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خلاصه مقاله:

Background: The CXCR4 receptor along with CXCL12 is believed to have an effect on the onset, progression, migration, and treatment complications and improve acute myeloid leukemia (AML) treatment outcomes. In this study, we investigated the impact of (Y+3) chemotherapy protocol on the expression of CXCR4 and its related ligand CXCL12. **Method:** In this case-control study, specimens were collected before and after the first cycle of chemotherapy of AML-M4 and AML-M5 patients. Reverse transcription polymerase chain reaction (RT-PCR) and flow cytometry techniques tested the CXCR4 expression. ELISA was used for measuring the serum level of CXCL12. Two samples, t-test and paired t-test, were utilized for data analysis. **Results:** We found that CXCR4 expression by lymphocyte cells after chemotherapy was approximately similar to the CXCR4 expression in the healthy subjects. Moreover, CXCR4 expression was high prior to chemotherapy. The serum level of CXCL12 considerably increased in the patients before chemotherapy. However, after chemotherapy, CXCL12 was found to reach the baseline level in comparison to the healthy control group. **Conclusion:** The (Y+3) current chemotherapy inhibited CXCL12. Therefore, controlling chemokines along with chemotherapy in AML patients might be conducive to the treatment process or even prevent the relapse of the disease.

کلمات کلیدی:

Acute myeloid leukemia, Chemotherapy, Chemokine, CXCL12, CXCR4

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