Soluble carcinoembryonic antigen cell adhesion molecule (sCEACAM) 1, 6 and 8 in acute myeloid leukemia: Their relation to survival and prognosis

Objectives: To study soluble CEACAM1, 6 and 8 in acute myeloid leukemia (AML) and to determine if they had an impact on survival and prognosis.

Methods: 102 subjects were included; 53 with AML and 49 healthy persons. All subjected to measurement of soluble CEACAM1, 6 and 8 by ELISA.

Results: The different sCEACAM were divided into high and low group by using median as a cutoff. Significant increase of sCEACAM1, 6 and 8 was found in their high group when compared to their low one and to the control group. Significant positive correlation of sCEACAM1 with lactic dehydrogenase and peripheral blood blasts. Significant negative correlation of sCEACAM1 with CD66a. Significant positive correlations between sCEACAM6 and 8. Significant increase of the relapse free survival (RFS) in the high group of sCEACAM6. Also, it was associated with increased overall survival 6.2 times when compared to the lower one. sCEACAM8 had significant good impact on induction remission.

Discussion: The sCEACAM1 could be released from the blast cells whereas both sCEACAM6 and 8 may be released from granulocytes. A relationship was found between the three sCEACAM1, 6 and 8. Both sCEACAM6 and 8 in the high group of sCEACAM1 was significantly decreased when compared to their values in the low group. The sCEACAM1 in both group of sCEACAM8 and in the high group of sCEACAM6 was insignificant from the control.

Conclusion: High group of sCEACAM6 and sCEACAM8 are independent good prognostic factors for overall survival and induction remission, while sCEACAM1 is a poor prognostic factor.

Biography

Amal Zaghloul has completed her Medical Doctorate in Clinical Pathology with specialty in Hematology from Faculty of Medicine, Ain Shams University, Egypt. She is a Professor of Clinical Pathology (Hematology) at Faculty of Medicine, Umm Al Qura University, Saudi Arabia and at Faculty of Medicine at Ain Shams University, Egypt. She has experience in the flow cytometry, immunohistochemistry and ELISA. She has published more than 25 papers in reputed journals.

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