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## Total expression of human leucocyte antigen-G and Toll-like receptor-9 in B-cell chronic lymphocytic leukemia patients: Relationship to prognostic markers

Hala Kassem Ahmed Said Sultan Medical Research Institute, Alexandria University , Egypt

**Introduction:** In CLL patients, immune escape mechanisms allow leukemia cells to proliferate and expand. Human leukocyte antigen G (HLA-G) is a further strategy adopted by CLL cells to evade immune defenses and to create protected niches where to grow and expand. Toll-like receptors (TLRs) represent major agents of innate immunity and initiators of adaptive immunity. It has been suggested that the stimulation of TLRs expressed on CLL cells could increase immunogenicity of tumor cells and thus potentially contribute to the induction of tumor-specific immune response. We study the total expression of HLA-G and TLR-9 in CLL patients, evaluating their relationships with other well established clinical and possible laboratory prognostic markers.

**Methods:** This study enrolled 40 CLL patients selected from the Hematology Department of the medical research institute and Alexandria Main Hospital. In addition, to 20 healthy subjects matched by age and sex.

**Results:** In CLL patients, HLA-G showed significant negative correlation to TLR-9 and both of them showed significant association with disease stage and prognostic index.

**Conclusion:** This study concluded that expression of HLA-G and TLR-9 could have a prognostic value in CLL patients; the higher the HLA-G expression, the lower the TLR-9 expression, the worst the outcome. Use of HLA-G and/or TLR-9 as markers for new targeted therapy in CLL could be valuable.

## Biography

Hala K. Sultan ; professor of hematology, graduated from Alexandria University in 1984 , She obtained her master degree in Clinical Hematology from Faculty of Medicine at the same University in 1990 and earned her MD degree in benign and malignant Hematology from Hematology department , Medical Research Institute in 1998. She has been working since then as a Hematologist in the same department, currently the Head of the department since June 2018. She has been involved in teaching & clinical research, supervised more than 25 master and MD theses and she has about 20 publications in various international and national journals.

hala.sultan.44h@gmail.com

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