



HLA-G and its relation to proliferation index in detection and monitoring breast cancer patients.

Sayed D, Badr G, Maximous D, Mikhail NN, Abu-Tarboush F, Alhazza IM.

Abstract:

ent studies indicate an ectopic upregulation of the human leukocyte antigen G (HLA-G) in tumor cells that may favor their escape from antitumor immune responses. The role of HLA-G in breast cancer has not been defined. Other studies showed that HLA-G transcription may be silenced by epigenetic mechanisms or activated by stress. This work aimed to clarify the expression of HLA-G protein, estimate the possible prognostic role of HLA-G expression and identify if this expression is linked to the DNA index (DI) and S phase fraction (SPF) in breast cancer. HLA-G protein expression and the DNA parameters were studied by flow cytometry and serum secreted HLA-G (sHLA-G) levels were detected by enzyme-linked immunosorbent assay (ELISA) in 45 breast cancer patients and 40 female blood donors as healthy donors. Surface HLA-G was expressed on 40% and the cytoplasmic pattern with no membrane association in 24.4% of the malignant specimens. There was an increased serum sHLA-G level in patients as compared with controls. There were negative correlations between cytoplasmic HLA-G and both DI and SPF and between preoperative sHLA-G and SPF with no relations with patients' clinical outcome. We cannot establish that HLA-G protein can be a useful prognostic marker, but sHLA-G may be used as a tumor marker in breast cancer patients.

Published In:

Tissue Antigens. , 75(1) , 40-47