

Breast cancer proliferative activity: Is it the source of free serum DNA?

Taha Ismail Hewala and Nadia Ahmad Abd El-Moneim

Alexandria University, Egypt

Aim: To study the relationship between serum DNA and breast cancer proliferative activity, and then compare the diagnostic and prognostic value of serum DNA, TPS and CEA.

Subjects and Methods: A total of 100 breast cancer patients before surgery and 50 normal healthy controls were analyzed for serum DNA, TPS and CEA.

Results: Serum DNA levels were non-significantly correlated with serum TPS levels. Serum DNA, TPS and CEA levels were significantly higher in patients than controls. Using ROC curve analysis, serum TPS and DNA had the highest AUC compared to serum CEA. Neither serum TPS, DNA nor CEA correlated with breast cancer clinicopathological data. Only serum CEA was significantly correlated with patients' disease-free survival, but serum DNA and TPS did not show this correlation.

Conclusion: Neither Breast cancer mass nor proliferative activity is the source of free serum DNA. Serum TPS is superior to DNA and CEA as a diagnostic marker for breast cancer. Only preoperative serum CEA has a prognostic role in predicting relapse of breast cancer patients, but not serum TPS and DNA.

Biography

Taha Ismail Hewala has completed his Ph.D. at the age of 31 years from Alexandria University and Assistant Professor in the field of cancer diagnosis and therapy at the age of 36 from Alexandria University. He is the Head of Radiation Sciences Department, Medical Research Institute, Alexandria University. He has published 8 papers in different international and local journals.