

#1458 Wednesday, April 24, 1996, 8:00–12:00, Poster Section 7

Prostate specific antigen levels in nipple aspirate fluid correlate with breast cancer risk. Sauter, E.R., Daly, M., Linahan, K., Ehya, H., Engstrom, P.F., Sorling, A., Bonney, G., Ross, E., Yu, H., Diamandis, E.P. *Fox Chase Cancer Ctr., Philadelphia, PA and Mt. Sinai Hosp., Toronto, Ont., Canada*

Prostate specific antigen (PSA), a protein thought to be specific to the prostate but recently found in a subset of breast tumors, has been correlated with improved survival. In an effort to identify candidate markers of breast cancer risk, we have obtained nipple aspirate fluid (NAF) for PSA in 54 women of all risk categories (no risk, family history of breast cancer, precancerous mastopathy, invasive cancer). In the present study, PSA in nipple aspirate fluid was evaluated in specimens as a possible marker of breast cancer risk using a sensitive immunofluorometric technique. PSA was found at levels ranging from 0–13, 423 ng/g of total protein, and correlated inversely with risk for breast cancer ($p = 0.001$). That is, women with no risk factors had the highest PSA levels. PSA also correlated inversely with the degree of cytologic abnormalities ($p = 0.04$). PSA was higher in premenopausal subjects ($p = 0.02$), but there was no apparent linear relationship between age and PSA. These findings suggest that PSA in nipple aspirate fluid is a marker of good prognosis, and may be useful both as a diagnostic tool (to identify primary or recurrent breast cancer), and as a marker of response (to chemoprevention or chemotherapeutic agents).