

Clinical value of CA 15-3, mucin-like carcinoma-associated antigen, tumor polypeptide antigen, and carcinoembryonic antigen in monitoring early breast cancer patients.

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Source

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Abstract

A total of 209 postsurgical breast cancer patients were prospectively monitored with simultaneous serum level estimations of CA 15,3, mucin-like carcinoma-associated antigen (MCA), tumor polypeptide antigen (TPA), and carcinoembryonic antigen (CEA); 141 (67.5%) were free of recurrence and 68 (32.5%) developed metastases during the follow-up. The mean values of tested tumor markers differed significantly in those with progressive disease compared with those free of disease recurrence. The sensitivity of tumor markers were CA 15-3, 68.2%; CEA, 34.1%; MCA, 72.7%; and TPA, 72.7%. The combination of CA 15-3 with TPA or MCA with TPA showed a trend for improved sensitivity of both markers ($p = 0.06$), with no specific loss of specificity ($p = 0.11$). The addition of CEA to CA 15-3 or MCA does not provide additional information for clinical evaluation. Patients with elevated tumor marker determinations had significantly shorter survival than those with values within the normal range. Two serial, progressively increasing values of tumor markers during the follow-up strongly predict recurrence. This study indicates that the comeasurement of CA 15-3 with TPA or MCA with TPA is justifiable in monitoring breast cancer patients postoperatively.