

Increased Ca 15-3 Levels In A Nonmetastatic Breast Cancer Patient, A Case Report

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Introduction - Purpose : Introduction: Tumor markers are molecules occurring in blood or tissue that are produced by a tumour associated with a cancer or by the host in response to the cancer whose measurement or identification is useful for clinical diagnosis or patient management. Tumor markers can be used for screening a high risk population for cancer, making a diagnosis and prognosis in a specific cancer and monitoring the course in a patient in remission or while receiving surgery, radiation, or chemotherapy. The ideal marker would be a “blood test” for cancer in which a positive result would occur only in patients with malignancy, one that would correlate with stage and response to treatment and that could be easily and reproducibly measured. Tumor markers may also increase in other benign diseases. In this case, we presented a patient with non-metastatic breast cancer whose CA 15-3 level was high.

Findings : Case: A 49 year-old female patient complained of swelling in the right breast, applied to the general surgery outpatient clinic. In the mammography, a mass of 6 cm was detected in the right breast (BIRADS 5). In August 2016, the pathology of right MRM and ALND was compatible with invasive ductal carcinoma. Patient diagnosed as stage IB (T1bNmicM0) breast cancer, was referred to our outpatient clinic for adjuvant treatment. In one of the axillary lymph nodes examined, caseous necrosis was detected. The patient was treated with isoniazid and rifampicin. AC and paclitaxel were given as adjuvant therapy followed by tamoxifen 20 mg/day. Thoracoabdominal CT taken before treatment did not reveal pathology other than findings in favor of secondary change to the previous tuberculosis (TBC). In the preoperative period, CEA was 4.24, Ca 15-3: 87, postoperative CEA was 3.82 and Ca 15-3: 71.9. In March 2017, the level of CA 15-3 was 108 U / ml. Whole body bone scan (WBBS) and Thoracoabdominal CT were performed to detect a possible metastasis. There was no evidence of metastasis in the imaging studies. The patient who had been in our care for about 1 year did not have any symptoms or complaints that would suggest a metastasis clinically. Elevation of CA 15-3 was associated with tuberculosis infection that the patient had experienced.

Discussion : Discussion: Cancer antigen 15-3 (CA 15-3) is a murine monoclonal antibody produced by normal breast cells (molecular weight: 300–450 kDa). In many patients with cancerous breast tumors, there is an increased production and shedding of CA 15-3 by the tumor cells. As it enters the bloodstream, its determination in blood makes it useful as a tumor marker to follow the course of the cancer. In healthy subjects the upper limit of CA 15-3 concentration is 25 U/ml. CA15-3 may also be elevated in individuals with other cancers, conditions, or diseases, such as lung cancer colorectal cancer, cirrhosis, hepatitis, sarcoidosis, tuberculosis, systemic lupus erythematosus and benign breast disease.

Keywords: CA 15-3, Breast cancer, benign, tuberculosis