

COMPARISON OF PREOPERATIVE SERUM CA15.3 LEVELS ACCORDING TO THE BREAST CANCER SUBGROUPS

Murat Araz (Afyon Kocatepe Üniversitesi, İç Hastalıkları ve Tıbbi Onkoloji, Afyonkarahisar)

İsmail Beypınar (Afyon Kocatepe Üniversitesi, İç Hastalıkları ve Tıbbi Onkoloji, Afyonkarahisar)

Sinan Kazan (Afyon Kocatepe Üniversitesi, İç Hastalıkları ve Nefroloji, Afyonkarahisar)

Fatih İnci (Karabük Üniversitesi, Karabük Eğitim ve Araştırma Hastanesi Tıbbi Onkoloji, Karabük)

Mesut Çeliker (Afyon Kocatepe Üniversitesi, İç Hastalıkları, Afyonkarahisar)

Mükremin Uysal (Afyon Kocatepe Üniversitesi, İç Hastalıkları ve Tıbbi Onkoloji, Afyonkarahisar)

Introduction - Purpose : Our knowledge about the correlation of between preoperative CA15.3 levels and breast cancer subgroups are very limited. In this study we aimed to investigate the variation of serum preoperative CA15.3 levels in early stage breast cancer subgroups.

Methods - Tools : We retrospectively investigated medical records of all breast cancer patients who admitted to Afyon Kocatepe University Department of Medical Oncology between January 2010 and December 2016. Demographic datas, ERs, PgRs, HER2s, Ki67s and CA 15-3 levels at the time of diagnosis were recorded. We investigated recordings of 751 breast cancer patients. 94 patients who had metastatic disease and 296 patients who had though lack of pretreatment CA15-3 levels were excluded. Totally 361 patients were analyzed in this study. The breast cancer subtypes were classified into five groups according to their IHC staining features (consistent with St. Gallen International Expert Consensus 2013) as follows; luminal A (ER+ and/or PR+, HER2-, and Ki-67<%20), luminal B1 or Luminal B HER2- (ER+ and/or PR±, HER2-, and Ki-67>%20), luminal B2 or Luminal B HER2+ (ER+ and/or PR±, and HER2+), HER-2 over expression (ER- and PR-, HER-2+) and Triple negative type (TN) (ER- and PR-, HER2-).

Findings : Clinicopathologic characteristics of the patients are given in Table 1. Median age of the study group was 54 years. There were 166 patients (%46) in Luminal A, 53 patients (%14,7) in Luminal B1, 74 patients (%20,5) in Luminal B2, 28 patients (%7,8) in HER2 over expressed and 40 patients (%11,1) in TN group. Median CA 15-3 was 18,75 U/ml in Luminal A, 19 U/ml in Luminal B1, 17,05 U/ml in Luminal B2, 16,9 U/ml in HER2 over expression and 16,61 U/ml in TN groups. Groups were similar to each other with regard to pre-treatment CA15-3 levels (p: 0,666). When the cut off level of CA15-3 were considered positive as 25 U/ml, there were 34 patients (%20,5) in Luminal A, 15 patients (%28,3) in Luminal B1, 15 patients (%20,3) in Luminal B2, 7 patients (%25) in Her-2 over expressed and 9 patients (%22,5) in triple negative groups. Breast cancer subgroups were found similar according to elevated CA15-3 status (p: 0,788)

Discussion : In our study the pre-operative levels of CA15-3 has no difference between breast cancer groups. The luminal groups tend to have a higher CA15-3 level at the time of diagnosis, but statistical difference was not be reached between groups.

Characteristic	N	CA 15-3 U/ml Median (range)	p	CA 15-3 ?25 U/ml	p
Age ≥50 <50	234 127	16,6 (0,4-69,6) 17,86 (0,8-84,71)	0,477	54/234 26/127	0,598
Histological type Invasive ductal Other types	325 36	17,2 (0,4-84,71) 18,13 (10,5-43)	0,292	71/325 9/36	0,674
Tumor size T1 T2 T3 T4	92 226 39 3	18,03 (0,4-62,04) 16,85 (1-59,43) 18,9 (4,6-84,71) 28,6 (21,11-43)	0,07	26/92 41/226 11/39 2/3	0,07
Stage 1 2 3	74 200 87	18,73 (0,4-37,46) 16,02 (1-59,43) 19,16 (1,7-84,71)	0,06	19/73 38/200 23/87	0,554
Grade 1-2 3 Unknown	184 106 71	18 (0,4-59,43) 16,33 (1-84,71)	0,328	45/184 16/106	0,07
ER Positive Negative	287 74	17,35 (0,4-84,71) 10,36 (1,7-69,6)	0,229	62/287 18/74	62/287 18/74
PR Positive Negative	261 100	17,13 (0,4-84,71) 17,5 (1,09-69,6)	0,176	59/261 21/100	0,779
HR Positive Negative	288 73	17,47 (0,4-84,71) 10,33 (1,7-69,6)	0,310	63/288 17/73	0,875
Nodal status Negative Positive	153 208	17,6 (0,4-59,43) 17,05 (1-84,71)	0,987	34/153 46/208	0,07
Molecular subtypes Luminal A Luminal B1 Luminal B2 HER2 TN	166 53 74 28 40	16,75 (0,4-62,04) 19 (6,59-35,48) 17,05 (1-84,71) 16,9 (8,6-32,21) 16,61 (1,7-69,6)	0,666	34/166 15/53 15/74 7/28 9/40	0,788

Keywords: Breast Cancer, Ca 15.3, Preoperative, Subgroups