

PREVALENCE OF CARDIOVASCULAR RISK FACTORS IN A LARGE MONOCENTRIC COHORT OF BREAST CANCER PATIENTS

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INTRODUCTION: Breast cancer (BC) and cardiovascular diseases (CVD) are the leading causes of mortality and morbidity in women. Cardiovascular risk factors (CVRF) predispose to both CVD and cardiotoxicity from anticancer treatments.

AIM: To define prevalence of CVRF in a large BC cohort of women systematically evaluated at our Cardio-Oncology outpatient clinic.

METHODS: All BC patients evaluated before starting chemotherapy and/or radiotherapy, from January 2016 to December 2017, were retrospectively enrolled.

RESULTS: 278 BC women were included. Mean age was 63±12 years: 137 were >65 years (49%). A-hundred-twenty-six patients were scheduled for treatment with anthracyclines (45%) and 57 with trastuzumab (21%).

We found a substantial prevalence of CVRF in our population, with 40% of patients having ≥2 CVRF. Thirty-two-percent of patients were smokers, 39% were dyslipidemic and 40% had hypertension.

Sixty-five of the 107 dyslipidemic women (60%) were not on therapy with statins. Among the 112 women affected by hypertension, 20 (18%) had blood pressure values not on target and required adjustment of therapy. Thirteen patients received a new diagnosis of hypertension (13/166: 8%).

CVRF were significantly more common in older women (CVRF≥2: 29% in younger vs. 51% in elderly, $p<0.001$), as well as hypertension, diabetes and dyslipidemia alone. At a multivariate analysis, age >65 years, but not CVRF≥2, was inversely associated with prescription of anthracyclines before the cardio-oncologic consultation.

CONCLUSIONS: CVRF are significantly prevalent in BC women, with a sub-optimal control. Their presence, however, seems not to influence the oncologist's choice of chemotherapies before the cardio-oncologic evaluation.

Table 1. Prevalence of CVRF

	Total population <i>n</i> (278), %	age ≤65 141 (51%)	age >65 137 (49%)	p
Females	278 (100%)	-	-	-
Age	63.1 ± 12.3	53 ± 9	73 ± 5	-
Arterial hypertension	112 (40%)	32 (23%)	80 (58%)	<0.001
Diabetes	19 (7%)	3 (2%)	16 (12%)	<0.01
Dyslipidemia	107 (39%)	36 (26%)	71 (52%)	<0.001
Smokers (former or current)	90 (32%)	47 (33%)	43 (31%)	ns
Familiarity for CAD	42 (15%)	23 (16%)	19 (14%)	ns
Number of CVRF ≥ 2	110 (40%)	41 (29%)	70 (51%)	<0.001
Prior CAD	7 (3%)	2 (1%)	5 (4%)	ns
Heart failure	3 (1%)	2 (1%)	1 (1%)	ns

(CAD: coronary artery disease; CVRF: cardiovascular risk factors)

Table 2. Potentially cardiotoxic treatments

	n	univariate		multivariate	
Anthracycline	126	OR (IC)	p	OR (IC)	p
age >65	46	2.4 (1.6 – 4.2)	<0.001	2.4 (1.5 - 4.0)	<0.001
CVRF ≥2	41	1.8 (1.1 – 2.9)	0.02	1.4 (0.9 – 2.4)	ns
CVD	3	2.0 (0.5 – 9.3)	ns	1.7 (0.4 – 8.1)	ns
Trastuzumab	57	OR (IC)	p	OR (IC)	p
age >65	23	1.6 (0.9 – 2.9)	ns	1.5 (0.8 – 2.8)	ns
CVRF ≥2	19	1.4 (0.8 – 2.7)	ns	1.4 (0.6 – 2.6)	ns
CVD	3	0.6 (0.2 – 2.8)	ns	0.5 (0.1 – 2.5)	ns

(CVRF: cardiovascular risk factors; CVD: cardiovascular diseases, including heart failure and/or prior coronary artery disease)