Incidence and Survival of Inflammatory Breast Cancer: A 10-Year Single-Institution Retrospective Analysis in Riyadh, Saudi Arabia.

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INTRODUCTION

- Inflammatory breast cancer (IBC) is a rare but highly aggressive form of primary breast carcinoma, accounting for approximately 5% of all breast cancer cases and typically presenting with erythema, edema, and *peau d'orange*. This study assessed the incidence of IBC among younger age groups and examined its association with poorer outcomes compared with non-inflammatory breast cancer. Despite the availability of multimodal treatment approaches, there remains a significant gap in epidemiological and outcome-related data on IBC within large and diverse populations, particularly in the Gulf region of the Middle East. In this retrospective study, we evaluated the incidence and survival outcomes of IBC over a 10-year period at a single institution in Saudi Arabia.

METHODS

- A retrospective analysis was conducted on patients diagnosed with breast cancer at our institution between 2015 and 2025. Initial screening procedures were used to identify cases of inflammatory breast cancer (IBC). For patients with confirmed IBC, data were collected on demographic characteristics, disease features, treatment modalities, and survival outcomes.

CONCLUSIONS

- The incidence of inflammatory breast cancer (IBC) in our cohort was 2.4% over a 10-year period, which aligns with the reported 2–4% incidence of IBC among all breast cancer subtypes in the United States. IBC remains an aggressive disease with a poor prognosis, a pattern that may be further exacerbated in patients with the triple-negative subtype. To better characterize the prevalence, biological behavior, and prognostic factors of IBC—particularly within the Gulf region—multicenter studies with larger and more diverse populations are needed to inform strategies that may improve patient outcomes.

RESULTS

PATIENTS

1,806 CASES SCREENED

43 DIAGNOSED (2.4%)

Median age 48.9 years

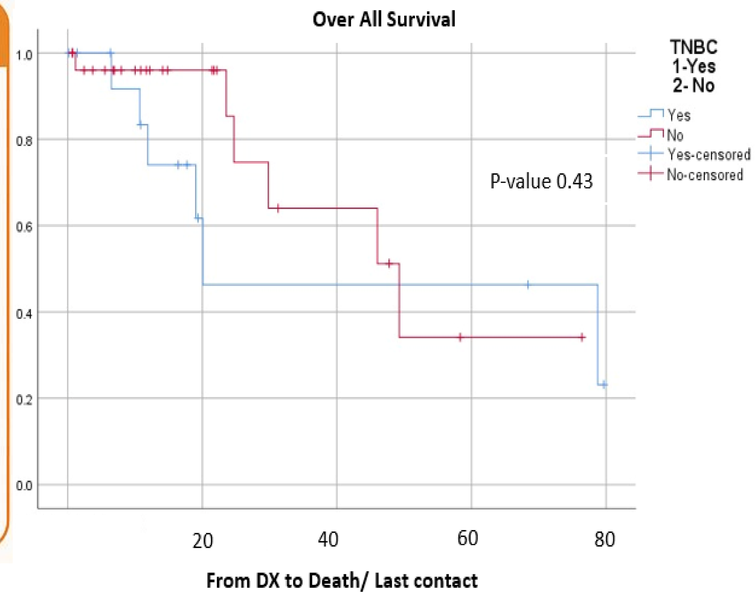
97.7% female

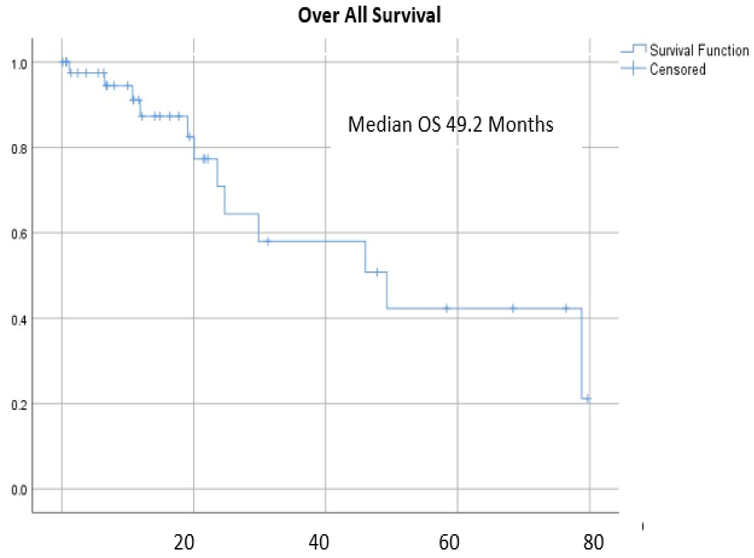
96.3% Saudi nationals

~60% pre-prenopausal

TREATMENT RECEIVED

CHEMOTHERAPY	n	%
CHEMOTHERAPY	37	86
IMMUNOTHERAPY	5	11.6
ANTI HER2	34	34.9
SURGERY	22	51.2
CDK4/6	8	18.6





TUMOR BIOLOGY

46.5% hormone receptor positive

HER2+

46.5% hormone receptor positive

16.3% enriched

2 BRCA1 mutations

Disease Characteristics		n	%
Pathology	IDC	38	88.4
	Others	5	11.6
Stage At DX	Mets	20	46.5
	No Mets	23	53.5
ER Status	positive	20	46.5
	Negative	23	53.5
PR Status	positive	14	32.6
	Negative	29	67.4
HEr2 Status	positive	13	30.2
	Negative	30	69.8
Was FISH Done	Yes	9	20.9
	No	34	79.1
TPBC	Yes	3	7.0
	No	40	93.0
TNBC	Yes	16	37.2
	No	27	62.8
Hormonal positive	Yes	20	46.5
	No	23	53.5
Her 2 Enrich	Yes	7	16.3
	No	36	83.7
BRCA 1	positive	2	4.7
	Negative	16	37.2
	Not Done	25	58.1
BRCA 2	Negative	18	41.9
	Not Done	25	58.1