

# Association of Sociodemographic Factors to Invasive Carcinoma of Breast in Adiwaniyah Teaching Hospital

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## ABSTRACT

**Background:** The risk features for breast tumor in females can be affected by environmental factors as well as genetic predisposition. Among environmental factors, sociodemographic characteristics have been linked to danger of breast tumor acquisition in a substantial number of previous research projects and clinical reports, but the conclusions of these reports were contradictory. In this study, we wanted to figure out the link between a number of sociodemographic factors and breast cancer.

**Aim of the study:** Is to evaluate the sociodemographic features that are associated with breast tumor.

**Patients and methods:** The existing cross sectional training stayed based on the retrieval of clinical case reports of females detected with breast tumor during the previous 10 years in Adiwaniyah Teaching Hospital, Adiwaniyah Province, Iraq. The following data were specifically looked for and reported: age, body mass index, residence, Results: Stage II disease showed significant association with housewives, low income, positive family history and smoking ( $p < 0.05$ ), but it was not significantly associated with, age, gender, residence and marital status ( $p > 0.05$ ). Most of the cases were of stage II accounting for 78.5 followed by stage I (21.5%).

**Conclusion:** sociodemographic characteristic of patients with breast cancer can be important determinate of advanced stage and late presentation of the disease.

**Key words:** stage, breast cancer, sociodemographic characteristics

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## INTRODUCTION

Based on recent published data, carcinoma of mammary glands accounts for approximately 11.6% of all new detected cases of malignant disorders, in addition, the morality rate due to breast carcinoma reached 6.6% out of all deaths attributed to malignant disorders [1, 2]. The occurrence of the illness has risen in both developing and developing nations [3-6]. It has been shown according to previous reports that 32% of all cases of cancers are due to malignancy in breast tissues and that death fraction caused by this kind of malignancy is approximately 18% [7, 8]. The rise in breast tumor cases detection in developing nations may be credited to increasing awareness of women about breast cancer leading them to seek medical advice for any suspicious early breast complaint [8].

Late presentation is a defining characteristic of breast cancer in developing nations, and this, along with other factors, is largely to blame for the subpar treatment results in terms of survival. Less than 10% of patients survive for five years at this stage [9-12]. The opposite is true in developing nations, where the 5-year survival rate is above 90% overall and is still increasing despite the rising prevalence of breast cancer [13].

A number of epidemiological articles linked late diagnosis of breast carcinoma to sociodemographic characteristics such as family history of breast cancer, unemployment, monthly income, family size, food habit, married station, level of teaching, religion and age [14, 15]. The phase of the illness at analysis has a important influence on the long-term prognosis of BC sick [16]. The stage of diagnosis affects the 5-year persistence proportions of sick with breast cancer, with Stage 0 and Stage I patients

having a 100% survival rate [17]. Early disease detection is crucial because it rises the likelihood of durable persistence when new BCs are discovered in their initial stages [18].

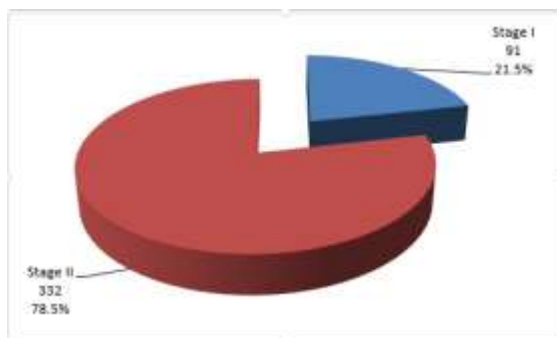
There is little information about the association between sociodemographic characteristics and clinic pathological characteristics of mammary tumor in Iraqi females; therefore, the objective of the present training stayed to assess the link between sociodemographic characteristics and clinic pathological characteristics of mammary cancer in a sample of Iraqi women.

### Patients and procedures

Case records from the last decade were obtained from Adiwaniyah teaching hospital's archive. The search spanned from January 1, 2013, to January 1, 2023. Details on clinical symptoms, patient age, histological variety, classification, lymph node count, and immunohistochemically analysis were documented. As the research was a look-back study, patient approval wasn't required. However, the health directorate's ethics committee provided clearance. Data presentation used counts, percentages, averages, spans, and standard deviations. The statistical tool employed was SPSS (version 26) from IBM in Chicago, USA. A p-value less than or equal to 0.05 determined statistical relevance.

### RESULTS

The frequency distribution of patients according to stage of disease is shown in figure 1. Most of the cases were of stage II accounting for 78.5 followed by stage I (21.5%).



**Fig. 1.** Pie chart showing the proportions of females with breast tumor according to stage of disease

The frequency distribution of sick with breast tumor rendering to sociodemographic characteristic contrasted between stage I and stage II disease is shown in table 1. Stage II disease showed significant association with housewives, low income, positive family history and smoking ( $p < 0.05$ ), but it was not significantly associated with, age, gender, residence and marital status ( $p > 0.05$ ).

**Tab. 1.** The occurrence dissemination of sick with breast tumor rendering to sociodemographic characteristic contrasted between stage I and stage II disease

Characteristic	Total	Stage II	Stage I	p
	n = 423	n = 332	n = 91	
<b>Age (years)</b>				
MMean ±SD	53.32 ±9.02	52.93 ±8.09	53.68 ±10.01	> 0.05 I
RRange	18-82	18-82	20-73	NS
<b>Gender</b>				
MMale	4	4 (1.2 %)	0 (0.0 %)	> 0.05 F
FFemale	419	328 (98.8 %)	91 (100.0 %)	NS
<b>Residence</b>				
UUrban	312 (73.8 %)	251 (75.6 %)	61 (67.0 %)	> 0.05 C
RRural	111 (26.2 %)	81 (24.4 %)	30 (33.0 %)	NS
<b>Occupation</b>				
HHousewife	238 (56.3 %)	218 (65.7 %)	20 (22.0 %)	<0.001 C
EEmployee	173 (40.9 %)	107 (32.2 %)	66 (72.5 %)	
SStudent	12 (2.8 %)	7 (2.1 %)	5 (5.5 %)	
<b>Income</b>				
LLow income	389 (92.0 %)	329 (99.1 %)	60 (65.9 %)	<0.001 C
HHigh income	34 (8.0 %)	3 (9.0 %)	31 (34.1 %)	
<b>Marital status</b>				
SSingle	13 (3.1 %)	10 (3.0 %)	3 (3.3 %)	> 0.05 F
MMarried	410 (96.9 %)	322 (97.0 %)	88 (96.7 %)	NS
<b>Family history</b>				
PPositive	188 (44.4 %)	177 (53.3 %)	11 (12.1 %)	<0.001 C
NNegative	235 (55.6 %)	155 (46.7 %)	80 (87.9 %)	
<b>Smoking</b>				
PPositive	135 (31.9 %)	121 (36.4 %)	14 (15.4 %)	<0.001 C
NNegative	288 (68.1 %)	211 (63.6 %)	77 (84.6 %)	

## DISCUSSION

In developed nations, the prevalence of breast tumor is rising and Iraq is one of these countries in which there was prominent rise in breast cancer cases during the last three decades. The rise in the occurrence of breast tumor takes stayed also reported in developed countries, but the prognosis in developed countries is far more promising in comparison with that in developing countries. The late diagnosis and presentation with relatively advanced stages are thought to be attributed to a number of sociodemographic factors.

Data from previous reports has raised the issue of a link between breast cancer late stages of disease and sociodemographic determinants. Sathwara et al. have concluded that stage II disease s more common and it was associated with urban residency and low education [17]. In addition, Sarkar et al. have reported that “Age, absence of suitable teaching, food habit, married station, physical action, menstrual type, age of menarche, , menopause, breastfeeding history, married age and stood underlined as important danger features of breast tumor in Indian females” . According to Olaogun et al. The commonly deprived result is not separate with late performance and insufficient analytic and management abilities [18]. In the existing training, several characteristics stayed related with relatively previous diagnosis and advanced stage of disease including unemployment, low level of income, positive family history and smoking.

Late diagnosis is associated with poor prognosis and failure of therapeutic approaches in controlling disease with high morbidity and mortality rate. It is recommended to keep these sociodemographic characteristics when doing screening program in our country in order to limit the cost of such programs and increasing their yield.

## CONCLUSION

Sociodemographic characteristic of sick with breast tumor can be important determinate of advanced stage and late presentation of the illness.

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