

# A survey of physicians' attitudes and practices to Screening Mammography in Osogbo & Ibadan, South-West Nigeria

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## Abstract

**Introduction:** Breast cancer is the most common cancer in African women. Screening mammography helps to detect breast cancer before it becomes invasive. The study is aimed at understanding the referral practices of physicians in two cities in South Western Nigeria.

**Methods:** Over a period of four months in October 2006 to January 2007, a questionnaire adapted from a previous similar study in USA, (table 1) was used to survey medical Practitioners in Osogbo & Ibadan, the capital cities of Osun and Oyo states of Nigeria regarding the attitudes and referrals practices of physicians to screening of asymptomatic women above the age of 40 years, two hundred and ten physicians were involved in the survey,

**Results:** One hundred and thirty five of the respondents (64%) do not send asymptomatic women for screening, out of which eighty one (60%) gave non-availability and thirty -two (23.7%) are of the opinion that the procedure is costly and yielded low result.

Only 3 physicians 3.3% of the population studied refer patients for yearly mammograms.

**Conclusion:** the low number of doctors involved in referring patients for screening mammography may be one of the reasons for the late presentation of breast cancer in our environment. The authors believe that a recommendation from a physician is the most important motivator for patients to have screening mammograms.

## INTRODUCTION

Breast cancer is a world-wide problem, and is the most common cancer reported in African American women<sup>1</sup>. One in 11 American women will develop breast cancer sometime in her life. It is associated with high morbidity and mortality in developing countries, presumably secondary to the characteristic late presentation of patients<sup>2</sup>. Mammography is a special type of x-ray imaging used to create detailed images of the breast. Mammography uses low dose x-ray; high contrast, high-resolution film; and an x-ray system designed specifically for imaging the breasts. Successful treatment of breast cancer depends on early diagnosis and mammography plays a major role in early detection of breast cancers. For black females, breast cancer has the highest incidence of any primary cancer. According to the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute, white, Hawaiian,

and African American women have the highest incidence of invasive breast cancer in the United States (approximately 4 times higher than the lowest group). Korean, American Indian, and Vietnamese women have the lowest incidence of invasive breast cancer in the United States<sup>3</sup>. The US Food and Drug Administration reports that mammography can find 85 to 90 percent of breast cancers in women over 50 and can discover a lump up to two years before it can be felt. The benefits of mammography far outweigh the risks and inconvenience. Aderounmu et al in their study on the knowledge and attitude of women to cancer of the breast in South Western Nigeria noted that inadequate knowledge of the disease and the limited awareness of the risk factors for cancer of the breast contributed significantly to the poor prognosis of breast cancer<sup>3</sup>.

Mammography practice has been in the country, since the 1980s, this study is focused on the usage of mammography

for screening of breast cancer in women in Osogbo and Ibadan, located in South-West, Nigeria. Although, no policy or recommendations exist in Nigeria for breast cancer screening, we believe the study can provide a baseline to understand the referring practices of medical practitioners for screening mammography.

## MATERIALS AND METHODS

Over a period of four months in October 2006 to January 2007, a questionnaire adapted from a previous similar study in USA<sup>4</sup>, (table 1) was used to survey medical Practitioners in Osogbo & Ibadan, the capital cities of Osun and Oyo states of Nigeria regarding the attitudes and referrals practices of physicians to screening of asymptomatic women above the age of 40 years. Four hundred and fifty questionnaires were given to doctors in their place of work, and Two hundred and ten doctors responded to the questionnaire (46.7%). The data was analyzed with SPSS 1, .frequency tables were used to analyze categorical variables.

**Figure 1**

Table 1

Check Box
1. How frequently do you refer asymptomatic women over 40 years for routine mammography?
<input type="checkbox"/> Never
<input type="checkbox"/> On a regular basis( every 1-3years) when there is a family or personal history of breast cancer
<input type="checkbox"/> Every year regardless of patient history or symptoms
<input type="checkbox"/> Every 2- 3 years regardless of patient history or symptoms
<input type="checkbox"/> Every 4-5 years regardless of patient history or symptoms
<input type="checkbox"/> others
2. If you selected the first or second choice in question 1.please indicate why you do not send all asymptomatic women above 40 years for screening mammograms
<input type="checkbox"/> High cost
<input type="checkbox"/> Risk of radiation exposure
<input type="checkbox"/> Other methods of screening is adequate
<input type="checkbox"/> Other reasons
<input type="checkbox"/> Not available
<input type="checkbox"/> Other reasons
3. Would you refer a woman over 40 years of age for mammograms every year if she requested for annual screening regardless of risk factors or symptoms
<input type="checkbox"/> Yes <input type="checkbox"/> NO
4. Your Specialty
<input type="checkbox"/> General practice
<input type="checkbox"/> Internal Medicine
<input type="checkbox"/> Obs/Gyn
<input type="checkbox"/> Surgery
<input type="checkbox"/> Others
5. Sex
<input type="checkbox"/> Male <input type="checkbox"/> Female
6. Type of Practice
Private hospital
<input type="checkbox"/> Solo <input type="checkbox"/> Group
Government Hospitals
<input type="checkbox"/> PHC <input type="checkbox"/> General Hospitals <input type="checkbox"/> University teaching centers
Company
<input type="checkbox"/> Private <input type="checkbox"/> Public
7. Age

Mammographic questionnaire adopted from Basset et al; Screening mammography: Referral practice of Los Angeles Physicians. AJR1986;147:689-692

## RESULTS

Two hundred and ten doctors answered the questionnaire. One hundred and seventy four were males (83%) and thirty –six females (18%). Ninety five percent are employed in the teaching hospitals, and less than three percent in private practice. (Table 1)

One hundred and thirty five of the respondents(64%) do not send asymptomatic women for screening, out of which eighty one (60%) gave non-availability and thirty -two (23.7%) are of the opinion that the procedure is costly and yields low result. Although most physicians do not refer patients for mammography, one hundred and sixty four (74%) indicated they will refer patients for screening mammography on personal request of the patients. There was no significant difference in the referring patterns between the various specialties. An individual (0.7%) mentioned radiation risk as reason for not referring patients for screening mammograms.

A total of 34(16.2%) doctors send patients for routine mammography only if there is symptoms or signs of breast cancer. In this group of doctors, high cost of the procedure 18(52.9%) radiation risk 9(26.5%) and non-availability 7(20.6%) were given as the basis for the selective referral of patients for mammography. (Table 4).

The physicians who never refer patients for screening and those who do so only if there are symptoms are grouped as A. (table 4)

Fourteen (6.9%) of the respondents regularly refer asymptomatic women above the age of 40 years for routine screening mammogram. only 3 physicians 3.3% of the population studied refer patients for yearly mammograms. (Table 3) these group of physicians are grouped as B.

Those who gave other reasons are grouped as C.

**Figure 2**

Table 2: Demographic characteristics of the respondents

Sex	Frequency (n = 210)	Percent (100%)
Males	174	82.9
Females	36	17.2
<b>Specialization of the Doctors</b>		
General practice	34	16.2
Internal Medicine	53	25.2
Obst & Gyne	80	38.1
Surgery	35	16.7
others	8	3.8
<b>Primary Place of employment</b>		
Private Practice	6	2.9
Teaching Hospitals	200	95.2
Company	4	1.9
<b>Age</b>	Mean 36.9 ± 7.1	

**Figure 3**

Table 3: Referral patterns of the physicians

	Frequency (n=210)	Percent (%)	Grouping of referral patterns
Never	135	64.3	A
Regular Basis for high risk patients	34	16.2	
All Patients			B
Every year	7	3.3	
Every 2 years	6	2.9	
Every 4 years	1	5	
Others	27	12.9	C

**Figure 4**

Table 4: Reasons for not sending patients for screening mammography in Group A above.

Reasons for not sending patients for screening mammography							Total
Group A	High Cost   Radiation risk   Not Available   other methods   others						
	Never	N	32	1	81	4	135
	%	23.7%	7%	60.0%	3.0%	12.6%	100.0%
	Regular Basis if there is symptoms	N	18	9	7		34
	%	52.9%	26.5%	20.6%			100.0%

## DISCUSSION

Mammography is an essential tool to the early detection of breast carcinoma; it is a fact that early detection of breast carcinoma is the cornerstone in the treatment of breast carcinoma. Clinical data worldwide supports this assertion, and clinical trials have shown that early detection improves prognosis. Mammography is presently the most effective methods in the detection of breast carcinoma <sup>5</sup>.

In the United States of America, the American Cancer Society recommended guidelines for the performance of screening mammography, includes a baseline mammograms for asymptomatic women aged 35-40, mammograms at 1-2 year interval for women age 40-50, and annual examination above the age of 50 years. In Nigeria, no guideline exists on screening mammograms or even on physical examination of the breast for the early detection of breast cancer. The lack

of a well defined approach to the early recognition of breast cancer is most probably the reason for the poor prognosis and late presentation of breast carcinoma in Nigeria.

This study show a low patronage of mammography facilities by doctors, 64.3% of the doctors do not send patients for routine mammography screening, only 6.7% send patients for routine screening every 1 to 4 years interval. This implies that physicians do not send patients for routine screening in the south west Nigeria, and when coupled with the low awareness of the disease by women in this environment <sup>6,7</sup> may be the plausible explanation for the late presentation of the disease in our environment.

Interestingly, 164 physicians (78.1%) agree that they will send patients for screening mammography if the women requests for it regardless of symptoms or positive family history. Once more this finding supports the work of other authors on the significance of providing women with information regarding breast carcinoma and the available screening methods ranging from breast self examination to mammography and ultrasonography <sup>8</sup>. Most studies show that women in our environment are not aware of these screening methods and that women that who have been educated on the risks of breast cancer are usually the ones that undergo screening <sup>9</sup>.

Of the 135 physicians who do not send patients for screening mammograms 81 (60%) gave non –availability of mammography facilities as their reason for not asking for routine mammograms (Table 4). Although, the number of mammography facilities is low when compared to the population of women, however, it is available in the city of Ibadan and Lagos and recently available in Osogbo; but unfortunately most of the functional centers are privately owned. We have 6 teaching hospitals in the southwest Nigeria but only Lagos University teaching hospital has a functional mammography unit as at the time of this report. Thirty two (23.7%) believed the cost of the procedure is high; this reason is plausible when we consider that most of the functional mammography centers are privately owned.

A disturbing fact from this survey is that most of the respondents are from the teaching hospitals 200 (95.2%), and their usage of the screening ability of mammography is very low. This implies that doctors who are in the academic centers and tertiary institutions of health care are not involved in breast cancer screening.

In summary, this survey show a low percentage of

physicians that refer patients for routine mammography, the major reason given is non-availability and the high cost of the procedure. We want to encourage management of the various tertiary centers to build proper mammography unit in the teaching hospitals. We believe this singular move will encourage doctors to refer more patients for screening, as well as, reducing the cost.

Both primary care physicians and specialist physicians should encourage their patients to have routine mammography: a recommendation from a physician is the most important motivator for patients<sup>10</sup>. The authors are of the opinion that Doctors should accept the challenge of providing information and education to women of the importance of screening mammography and there is a need for the Radiological Society of Nigeria to develop a protocol for mammographic breast cancer screening in the country.

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## **References**

1. Parker S, Tong L, Bolden S, Wingo P. Cancer Statistics 1996. *CA Cancer J Clin* 1996;46:8-9.
2. Aderoumu A.O.A, Egbewale B.E, Ojotifeitimi E.O et al. Knowledge, attitudes and practices of the educated and non-educated women to cancer of the breast in semi-urban and rural areas of the South-West, Nigeria. *Nigerian Postgraduate Medical Journal* 2006;13:182-187
3. Centers for Disease Control and Prevention: National Cancer Data. Available at <http://www.cdc.gov/cancer/natlancerdata.htm>
4. Basset L.W, Bunnell D.H, Gold R.H. Screening Mammography: Referral Practices of Los Angeles Physicians. *AJR* 1986;147:689-692
5. Nystrom L, Rutqvist I, Wall S, et al. Breast cancer screening with mammography: overview of Swedish randomized trials. *Lancet* 1993;341:973-8.
6. Ohaeri J.U, Campbell O.B, Ilesanmi A.O, Ohaeri B.M. Psychosocial concerns of Nigeria women with breast and cervical cancer. *Psychooncology* 1998;7:494-501.
7. Ojotimehin E.O, Aderounmu A.O, Lomuwagun A.F et al. Assessment of knowledge and practice of nutritional and life style risk factors associated with cancer among hospital workers at two university hospitals in Osun state, Nigeria. *Nutrition and health* 2003; 17; 139.
8. Pearlman D.N, Clark M.A, Rakowski W, Ehrich B. Screening for breast cancer and cervical cancer. The importance of knowledge and perceived cancer survivability. *Women health* 1999;28:93-112.
9. Sung J.F, blumethal D.S, coates R.J. Knowledge, beliefs, attitudes and cancer screening among inner-city African-American women. *Journal national medical Association* 1997;89:405-411
10. Ferrini R, Mannino E, Ramsdell E, Hill L, Screening Mammography for Breast Cancer: American College of Preventive Medicine Practice Policy Statement. *American Journal of Preventive Medicine* 1996;12:340-41.

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