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## Knowledge of cancer and self-breast examination among women working in agricultural sector in Mangalore, Karnataka, India

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### Abstract

Globally, breast cancer is the most common cancer among women and its incidence is increasing in India. Innumerable observations have indicated that in cancer, and more specifically in that of breast, the timely treatment and prevention of progression is considered to be the most important in preventing the growth. For this to be achieved, women should have some knowledge on what cancer is, and the symptoms associated with early detection. Uneducated women are at risk of late stage breast cancer due to poor education and lack of access to medical facilities. The knowledge, attitude and practice of breast self examination is the easiest and cheapest method to detect breast cancer. The investigators carried out a study to ascertain the knowledge on various aspects of breast cancer in women working in the agricultural based setup in Mangalore, India. The results indicated that the knowledge and awareness of participants was poor. Since rural women have lower levels of education, it is recommended that educational courses with contents about breast cancer, its risk factors, and symptoms be held for these women.

**Keywords:** breast cancer, breast self-examination, agricultural sector

### 1. Introduction

Breast cancer previously considered as a disease of the affluent society is now known to occur in all sectors of the world irrespective of the socio-economic status. It is the second most common tumor after lung cancer in both sexes and is common among females of both developing and developed countries (Bray *et al.*, 2004; Ferlay *et al.* 2001) [2, 4]. According to a study ever three minutes a new case of breast cancer is detected and every thirteen minutes a woman succumbs to breast cancer (Gass and Rebar, 2008) [5].

In India, breast cancer is the second most commonly diagnosed cancer only after cervical cancer and it is estimated that death because of breast cancer is highest in India when compared worldwide (Ertem and Koçer, 2009; Kamath *et al.* 2013) [3, 9]. According to a study the incidence of breast cancer is about 28.9 per one lakh in India, though some regions like Chandigarh, Goa show high prevalence than the national average. Studies have shown that breast cancer in India occurs most commonly in the age group of 40-50, as compared to a high incidence in the post menopausal women of the western world and also a steadily increasing rate of breast cancer is being reported from India since 1980's (Bagchi *et al.* 2008, Murthy *et al.* 2007, Parkin *et al.* 2001, Yeole *et al.* 1990) [1, 10, 12, 14]. According to a report by Indian Council Of Medical Research (ICMR) breast cancer cases are predicted to rise to 1,06,124 cases by 2015 and 123,634 cases by 2020 (Programme NCR). Hence the need of the day is to reduce the incidence and mortality rates due to breast cancer by intervention at the right time.

The best way of protecting oneself from breast cancer is by early detection, increasing women's awareness and implementing breast cancer screening programs to detect the cancer early (Humphrey *et al.* 2002) [7]. The most commonly employed screening method for breast cancer is breast self-examination, clinical breast examination and mammogram (Nelson *et al.*, 2009) [11]. Breast self-examination has the advantage over the latter two of being inexpensive; non-invasive and can be routinely performed effectively (Nelson *et al.*, 2009) [11].

Also, before the advent of mammogram 65% of cases of breast cancer were diagnosed because of their breast mass identified by breast self examination and clinical breast examination (Haggensen 1952) [6]. This emphasizes the need for women to have knowledge about the methods of breast self examination and to practice breast self examination on a regular basis which can be used as an effective tool in early detection. Hence this study was conducted to explore the knowledge and practice of breast self examination among the women of Mangalore.

### Subjects and Method

A questionnaire study regarding knowledge and practice of breast self examination was conducted on January 27th 2012 at a Breast cancer Awareness program for women working in the Agricultural sector. The program was conducted under the aegis of The Shri Kshethra Dharmasthala Rural Development Project (SKDRDP) at Urva, Mangalore, India. The study population consisted of women who were working in agricultural sectors as farm workers. Author made questionnaire addressing various demography and cancer in the Kannada language was distributed to the

participants before the start of the educative program by one of the authors. No information was given to either of the groups regarding breast self examination preceding the test. All the participants were briefed about the need and purpose of the current study and the developed questionnaire was given to all the participants to read and fill. The participants were given full rights to withdraw from the study at any point of time if they don't wish to participate in it. All the completed questionnaires were collected back and the data was taken for statistical analysis to find out the frequency.

### Results

Of the 160 distributed questionnaires, 75 questionnaires were obtained back with a response rate of 46.87%. The participants in this study were mostly in the age range of 20-40 years and 72% of them were married. Most of the people read news paper (33.33%) on a daily basis. With regard to breast cancer, 91.6% had not heard of self breast examination and had not performed it at all. The other details pertaining to their knowledge on breast cancer was poor and is enlisted in Table 1.

**Table 1:** Demographic and knowledge on cancer in the women working in agricultural settings in Mangalore, India.

	Question choices	Farm workers
Age	Less than 20 years	5 (6.66%)
	20 to 30 years	32 (42.66%)
	30 to 40 years	38 (50.66%)
Education	Uneducated	10 (13.33%)
	Middle school	26 (34.66%)
	High School	19 (25.33%)
	SSLC (10 <sup>th</sup> )	15 (20%)
	PUC (12 <sup>th</sup> )	5 (6.66%)
Marital status	Unmarried	20 (26.66%)
	Married	54 (72%)
	Widow	1 (1.33%)
Have you heard about cancer	Yes	72 (96%)
	No	3 (4%)
Did anyone in your family suffer from breast cancer	Yes	2 (3.33%)
	No	58 (96.76%)
Source of information	News paper & Magazine	20 (33.33)
	Television	10 (16.66)
	Radio	15 (25)
	Internet	0 (0)
	Medical Social workers	10 (16.66)
	Family members	5 (8.33)
Most common age group who are at risk of developing breast cancer	10-19 years	8 (13.33)
	20-29 years	19 (31.66)
	30-39 years	15 (25)
	Above 40 years	18 (30)
One of the signs of breast cancer	Painless breast nodule	9 (15%)
	Others	51 (85%)
Read about breast self examination	Yes	5 (8.33)
	No	55 (91.66)
Performed breast self examination	Yes	5 (8.33)
	No	55 (91.66)

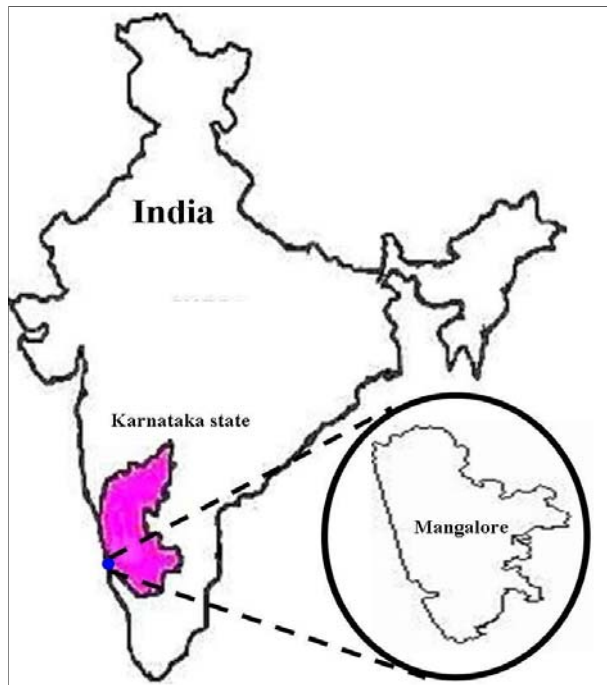


Fig 1: Geographical location of Mangalore in India

### Discussion

Breast cancer being one of the leading causes of cancer mortality, emphasizes the need for early detection and treatment. In the present study we assessed the knowledge on breast cancer awareness among women working in agricultural setup in Mangalore area of India. In this study, only about 8.33% of the women had heard about breast self examination. This matches with the results of the study by Hussein and co workers (2013), which observed that there was a lack of knowledge on breast self examination among the people of northern Saudi Arabia. From our study we observed that, amongst the women having knowledge about breast self examination, majority of them gained information from paper.

Breast self examination is generally recommended to be started soon after 20 years in women and continued through out her life, even during pregnancy and following menopause (Nelson *et al.*, 2009)<sup>[11]</sup>. Ideally performed once a month it begins with inspection for any lumps, discharge from the nipple, dimpling of the overlying breast skin. The second step of breast self examination is done with the hands clasped behind the head and pushing the hand forwards and looking for any visible abnormalities of the breast in the mirror. In the third step the hand is pressed firmly around the hips and bent forwards as the elbow and shoulder are pulled forwards. The fourth step involves palpation of the nipple and the areola region and looking for any discharge from the nipple during palpation (Nelson *et al.*, 2009)<sup>[11]</sup>. As the breast is best examined on lying position the fifth step consists of breast examination in lying down position. One arm placed over the head, with a pillow to support the same side and the other hand is used to feel the breast for any abnormality (Nelson *et al.*, 2009)<sup>[11]</sup>.

Ideally a women should perform regular breast self examination to notice any swelling on the breast or overlying its extension into the under arm, as this is the most economical and earliest way of detecting breast cancer. In the present study it was observed that women were unaware

of breast self examination and thought that breast self examination consists of both inspection and palpation of the breast. Together the results indicate that the knowledge regarding breast self examination is poor among women working in agricultural based sector. It is imperative that we educate them with the correct methods of breast self examination and to adhere to a routine protocol of practicing it on a regular basis. Breast self examination is a effective tool in the early detection of breast cancer, and empowering the women will help in early detection of cancer. To achieve this we propose to take up active educative and training camps to propagate the right knowledge on breast self examination.

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