A DESCRIPTIVE STUDY ON THE ASSESSMENT OF RISK FACTORS OF BREAST CANCER IN FEMALES

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Abstract:

Objective: The aim of this research work is to interrogate the risk factors of breast cancer and provide its comparison with the information gathered from other research works.

Methodology: This research work carried out in November 2019 in Govt. General Hospital Ghulam Muhammadabad Faisalabad. We collected the data about characteristics of demography, information related to various risk factors, including the information about mammograms with the use of a questionnaire.

Results: In this research work, we conducted interview of total 109 participants. The average age of the patients was 40.480 ± 0.560 years. There were 1.80% unmarried females, whereas 78.0% were living their married life and 20.20% females were widow or divorced. The average menarche age was 13.340 ± 1.470 years and average age of menopause was 46.890 ± 4.980 years. The average parity time was 2.360 ± 1.130 and average breast feeding in females was 23.270 ± 14.160 months. Approximately 5.50% participants utilized oral contraceptive for contraception. 8.30% females experienced the state of menopause, at average age of 46.890 ± 4.980 years. 33.30% menopause females utilized HRT (Hormone Replace Therapy). Furthermore, 8.30% females had a strong past history of breast cancer in their close family members. In those females on whom mammography was performed, 10.10% patients had breast mass in findings of radiology, largely in favor of fibrocystic alteration. In 20.20% participants, there was advice of further examination.

Conclusion: The results of this research work were consistent with the findings of other research work conducted in our country Pakistan. There is need of more multi-center research works to find out the pattern of this complication in our Pakistani females.

KEYWORDS: Multi-Center, Mammography, Alteration, Risk Factors, Menopause, Contraception.

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INTRODUCTION:

The aim of the programs of public health is to decrease the morbidity as well as mortality because of different diseases. In population of our country, incidence of breast cancer is 1.50 / 1000 females [1-3]. In accordance with the findings of ACS (American Cancer Society), about 200000 patients of breast cancer and 23000 patients of ovarian cancer are being identified in USA in each year [4]. While this rate of incidence is much low as compared to incidence of breast cancer in females of younger age and it is the most important cause of death due to cancer in females from 15 to 54 years of age [5]. About 12000 new patients are detected every year in females under 40 year of age [6]. CBE (Clinical Breast Exam) is single modality that is being normally used for the screening of the patients with risk factors of breast cancer. There is very limited capacity of Clinical Breast Exam because is not sensitive for all types of abrasions and it totally depends upon the examiner. Various research works showed that majority of the females under 40 years of age diagnosed their own cancers, with self-identified cancers taking place at a relatively developed stages [7, 8].

Generally, late identification may cause more aggressive and expensive therapy regimens and high rate of morbidity and low rate of survival [9, 10]. Screening through mammography is offered to females having less than forty year of age if they are present with acknowledged genetic, personnel and familial risk factors. But most of the females who develop this complication (90.0%) do not have these known risk factors and the screening of these patients carried out with clinical and self-breast exam only [11-13]. The reliance upon the acknowledged factors of risk as a standard for the additional screening can be utilized as a way to discover some females present with the development of breast cancer, we carried out a program of screening, a combination of examination of breast cancer by an oncologist and assessment of various risk factors on selected samples in November 2019. The utilization of the methods for the assessments of the risks can discover the increased risks of breast cancer in females who otherwise would be ignored by recent programs of health care facilities but these may be beneficial for most of the patients.

MATERIAL AND METHODS:

This research work carried out in November 2019 in Govt. General Hospital Ghulam Muhammadabad Faisalabad. We selected the participants randomly from the department. We excluded the females present with hysterectomy and artificial menopausal state. Ethical committee of the hospital gave the permission to conduct this research work. We took written consent from every patient after explaining them the purpose of this research work. Only single investigator interviewed all the females. We collected the characteristics of demography and information about risk factors with the utilization of the well-organized questionnaire comprising the information about age of the patient, level of education, marital status, profession, past positive history of breast cancer in family, age at the time of menarche, party number and use of contraceptive, menopause state age at the time of menopause and any alteration in the breast examination. We classified the females with menopause if these females were present without menstruation in the duration of last 6 months before the collection of the information.

RESULTS:

Interview of 109 females carried out in this research work. Among them, 81.70% participants were working in the clinical sections of our hospital and 18.30% were working in non-clinical units. We divided all the risk factors for this complication in 2 groups of modifiable and non-modifiable risk factors. A complete summary of hereditary factors of risk for this complication like average of patients, marital status, average age at the time of marriage, regularity in menstruation periods, average parity time, average menarche age, average menopause age and positive past history of disease in close family members is present in Table-1.

Table-I: Non-Modifiable Risk Factors for Breast Cancer in 109 Participants		
Risk factors		Values
Age	Age groups (Mean)	40.48 ± 0.56
	Age at menarche (Mean)	13.34 ±1.47
Parity	Parous	87(79.8%)
	Nulliparous	22(20.2%)
Full term Pregnancy (Age, Mean)	Mean age at first full term pregnancy	24.56±4.31
	Mean age at second full term pregnancy	30.38 ± 5.25
Menopausal status	Premenopausal	100 (91.7%)
	Postmenopausal	9 (8.3%)
	Mean age at menopause	46.89 ± 4.98
Menstruation condition	Regular	77.40%
	Irregular	22.60%
Pregnancy Times	1	17 (19.5%)
	2	41 (47.1%)
	3	17 (19.5%)
	>3	12 (13.8%)
	Mean ± SD	2.36 ± 1.13
Family History	Yes	9 (8.3%)
	No	100 (91.7%)
Marital Status	Married	85 (87%)
	Widowed/divorced	22 (20.2%)
	Never married	2 (1.8%)

There was no patient with past history of cigarette smoking. The average duration of breast-feeding among females was 23.270 ± 14.160 months. Moreover, 28.40% females were present with past history of abortions in past. Table-2 shows non-modifiable factors of risk like level of education, methods of utilization of contraception, Hormone Replace Therapy after menopause and screening of regular mammography. The examination of the participants carried out to identify any asymmetry, palpable lump, enflamed lymph node in the infra and supra-clavicular or in axillary region, asymmetry, local inflammation, deformity or discharge.

There were 10.10% patients present with breast mass in the findings of radiology, mostly suggesting the fibrocystic alterations. In 20.20% participants, there was need of further investigation (Table-2).

Table-II: Modifiable Risk Factors for Breast Cancer in 109 Participants		
Risk factors		Frequency (%)
Educational level	Illiterate	20.20%
	Diploma	31.70%
	University	48.10%
Hormone Replace Therapy replacement after menopause	Yes	3 (33.3)
	No	6 (66.7)
Contraceptive methods	No methods	16 (14.7)
	OCP	6 (5.5)
	IUD	19 (17.4)
	Other methods	68 (62.4)
History of previous mammography	No	83 (76.1)
	One time	21 (19.3)
	Two times	4 (3.7)
	Three times	1 (0.9)
Palpable mass in breast exam	Yes	4 (3.7)
	No	105 (96.3)
Breast mass in radiography	Yes	11 (10.1)
	No	98 (89.9)
Further advised medial investigation	No further investigation	87 (79.8)
	Mammography	15 (13.8)
	Mammography + FNA	1 (0.9)
	FNA	2 (1.8)
	Sonography	3 (2.8)
	Excisional biopsy	1 (0.9)

DISCUSSION:

Patients of breast cancer in our country are rather younger and findings of research works of past about this complication showed singularity and positive history of breast cancer in close members of family are possible risk factors for this disease. These findings approve other research works that positive history in the family is important risk factor for prevalence of breast cancer in very younger age [14], although it is reported that this risk factor has a little impact on the survival of the patients and rate of mortality because of breast cancer [15]. In accordance with some research work conducted in our country Pakistan, it might be deliberated that relatively huge amount of the young patients of breast cancer in Pakistan is because of the structure of young population and to a combination of elder age at menarche time and low age at the time of 1st pregnancy. One other research work conducted in USA confirmed that in some subgroups of Asia, females identified with breast cancer are tend be of younger age as compared to the females of other ethnic groups. There is never high risk of breast cancer among married females.

In many research works, nulliparous married females were present to have a same enhanced risk for this complication in comparison with the multiparous females of similar age [17]. It may be supposed that the marital condition is not an important risk factor for increase or decrease of the risk factor of breast cancer. Some research work supported the association between parity and marital condition [18], showing the increased impact of parity on the risk of breast cancer with pregnancy. Some research works have confirmed that possible relation between age of female, positive history of breast cancer in family and parity number [19]. Some research works stated that null parity decreases the risk for this complication at young age and increases the risk of breast cancer in elder age [10]. Some research work proved that there is high risk of breast cancer in females present with positive history of breast cancer in family and using oral contraceptives.

CONCLUSION:

There is need of further multi-center research works to consolidate the findings of this research work. The association of different factors of risk and breast cancer may be different in Pakistan in comparison with the countries of west, and breast cancer among young females of Pakistan needs more examination.

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