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RESEARCH ARTICLE

OUTCOME OF BREAST LUMPS.

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Abstract

Introduction: Breast lumps are one of the most prevalent presenting complaints in an outpatient department (OPD) in Pakistan. About 90% are benign and without any grave consequences but malignant lumps contribute to a consequential percentage of all breast lumps. With growing vigilance in the general population, specially about breast pathologies and the associated solicitude and stress that this condition may lead to breast cancer with grin consequences, compels patients to seek medical advice.

Materials & Methods: This is a Cross sectional study performed at surgical OPD of Bahawal Victoria Hospital, Bahawalpur. Study was conducted from 15th April to 15th May 2018. A total of 95 patients were included by convenience sampling method. Data was analyzed manually and elaborated with the help of tables and charts.

Conclusion: This study concludes that the frequency of breast cancer, inflammatory diseases and fibro adenoma is higher in our set up as compared to the world literature. Breast cancer was the most common disease. This maybe because the study was carried out on a small scale and limited number of cases were included and the duration was short. However the early age of diagnosis shows that there is need of breast care clinics and population screening programs to detect breast cancer as soon as possible. It is recommended that the surgeon managing a case of breast lump in a patient above 30 years should be highly suspicious and cautious so that early detection and management of malignant lumps be carried out.

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Introduction:-

Breast lumps are one of the most prevalent presenting complaints in an outpatient department (OPD) in Pakistan [1]. About 90% of these lumps are benign without any grave consequences but malignant lumps contribute to a significant number of these. With growing vigilance in the general population, specially about breast pathologies and the associated solicitude and stress that this condition may lead to breast cancer with grin consequences, compels patients to seek medical advice[2,3].

Breast is an organ which is a symbol of femininity and fertility and is a source of nurturing the infants therefore any disease in breast is a very sensitive issue for a female. studies show that one fourth women suffer from breast disease in their lifetime after puberty[3,4].

Breast diseases may also present with nipple discharge, breast pain, asymmetry, nodularity, nipple inversion or an inflammatory lesion but the breast lump is the most common presentation of breast diseases[3]. Presentation of breast disease may be delayed due to socioeconomic, cultural and religious factors, lack of awareness and knowledge[4]. Breast lump may be either benign or malignant.

Malignancy or breast cancer can be the worst fear of any woman with a breast lump, however most of the reports indicate that majority of the breast lumps are benign and non-proliferative lesions[5]. In USA certain studies have shown that 90% of patients have benign breast disease while 10% have cancer. Benign breast lumps are caused by two main conditions, fibro-adenoma in young women and cyst in pre & post menopausal women. It is now being increasingly realized that cancer may develop from benign premalignant lesions. Early diagnosis is therefore key to survival. Diagnosis is based on complete history, past family history of cancer and physical examination of lump. Ultrasonography for younger women under 35 years of age and Mammogram (MMG) for women more than 35 years are employed. Invasive procedures like FNAC and tissue biopsy are the most common diagnostic procedures that must be used to rule out any malignancy and to save patient from unnecessary mutilation in case of benign disease. Breast cancer is the most common cancer and second leading cause of death of women after 30 years age in USA and western world[6,7].

In the western world breast cancer accounts for 27% of all female cancers and one out of fourteen women can expect to develop breast cancer in their lifetime. It is also the most frequent female cancer in Pakistan, accounting for almost 26.6% cancer cases[8,9,10]. This is why we have conducted this research to further expand our knowledge about outcomes of breast lumps in this region.

Methodology:-

The study was conducted in surgical outpatient department of Bahawal Victoria Hospital, Bahawalpur from 15th April to 15th May 2018. A total of 95 female patients attending surgical OPD were included by convenience sampling method. It is a cross sectional study. Only female patients of all ages attending surgical OPD were included, while unwilling patients were excluded.

Data was collected on predesigned questionnaire. The questionnaire consisted of two parts. Part A was about the personal bio-data of the patient, while part B consisted of questions pertaining to disease under study. All patients coming to OPD fulfilling the inclusion/exclusion criteria were included in the study. After taking the informed consent the questions were translated in local language and asked to patients. The reports and test results of these patients were documented. Data was analyzed manually and tables and figures made.

Results:-

Our study was about the outcome of breast lumps in patients attending surgical OPD. 95 females were included in our study. The most common age group presenting to OPD with lump in breast was 16-25 years of age (58%).

Out of 95 females, 24% were unmarried, % married, while % were widowed. From all the married population, 63% were multiparous and 32% were nulliparous.

Menstrual history revealed that 73% of the females had a regular cycle of 28-30 days. 13% females were using oral contraceptives and family history of breast lumps was positive in 21% of females.

In our study 41% patients had malignant carcinoma of the breast followed by fibro-adenoma in 36% and other breast lumps / abscesses in 15% of patients.

Most common age group suffering from breast carcinoma was 26-40 years of age, where it was found to be 13%. Fibro-adenoma was the most common disease of younger age group of 15-25 years of age.

Females with positive family history of breast lumps were 21%, while 78% had no family history of breast lumps. 80% females having positive family history had breast carcinoma and 20% had fibro-adenoma. Out of 78.9% females having no family history of breast lump 33.3% had carcinoma of breast, 41.3% had fibro-adenoma, 20% had abscess /cyst, 2.66% had fibrocystic changes and Lipoma.(Table no. 2)

76.8% subjects had regular menstrual history out of which 41% had carcinoma of breast and fibro-adenoma, 13.0 % had abscess /cyst, 2.7% have fibrocystic changes and 1.3o/o have Lipoma. 23.1 % subjects reported with irregular menstrual history out of which 50% were diagnosed as carcinoma of breast,22.7 % cases were of fibro-adenoma, 22% cases were of abscess/cyst and 4% cases were of Lipoma. (Table no. 3) Subjects who had used oral contraceptives are 13.68% out of which 46.15 % were used by females having carcinoma breast, 38.46% were used by females having fibro-adenoma, 15.3 % were used by females having abscess /cyst. 80.31% females did not use oral contraceptives out of which 42.68% were diagnosed as carcinoma of breast, 36.58% were diagnosed as fibro-adenoma , 15.85 % were cases of abscess/cyst, 2.43 % were cases of fibrocystic changes and Lipoma. (Table no. 4)

Table No 1:-

Sr. #	AGE GROUP	n	%
	16-35	58	61.05
2	36-55	31	32.63
3	56-75	06	6.31

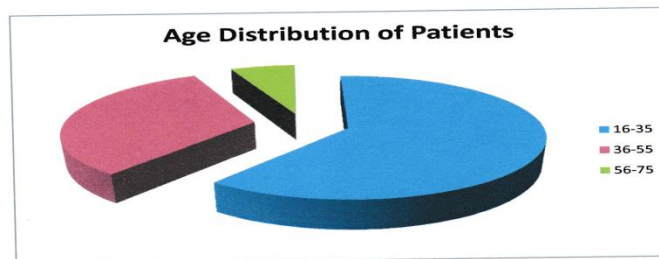


Fig.no.1 Age distribution of Patient

TABLE NO. 2

Menstrual history

Menstrual history	CA		Fibro adenoma		Abscess/cyst		Fibrocystic change		Lipoma	
	N	%	N	%	N	%	N	%	N	%
Regular	30	41	30	41	10	13.6	2	2.7	1	1.3
Irregular	11	50	5	22.7	5	22.7			1	4.5

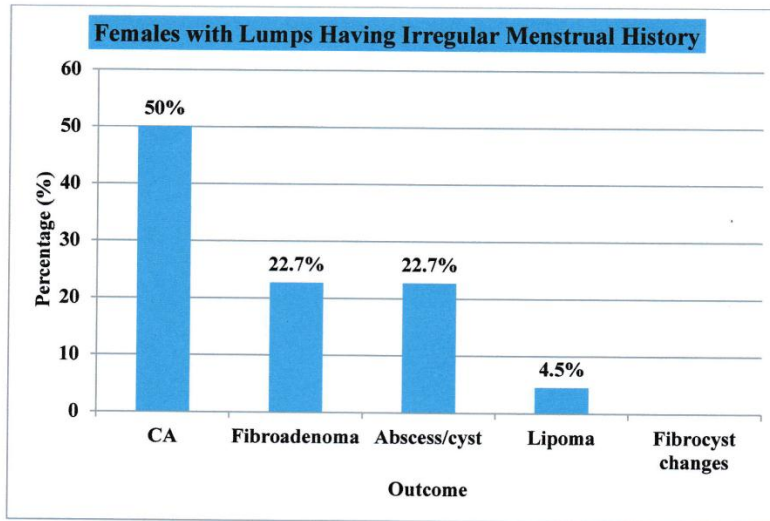


Fig.no.2 Females with Lumps Having Irregular Menstrual History

TABLE NO. 3

Distribution according to marital status

Marital status	CA		Fibro adenoma		Abscess/cyst		Fibrocystic changes		Lipoma	
	N	%	N	%	N	%	N	%	N	%
Married	41	57.76	12	16.90	14	19.71	2	2.81	2	2.81
Un-married			23	95.83	1	4.1				

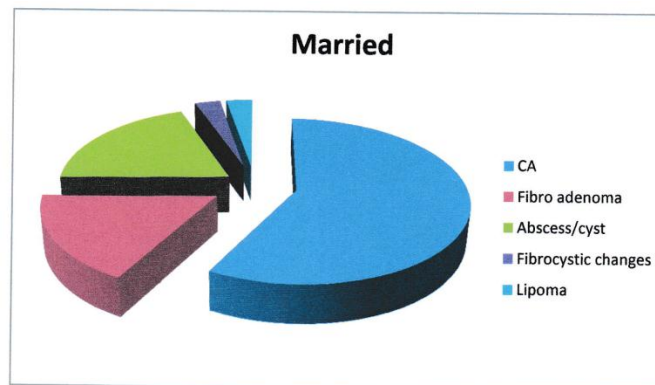


Fig. No.3 Married

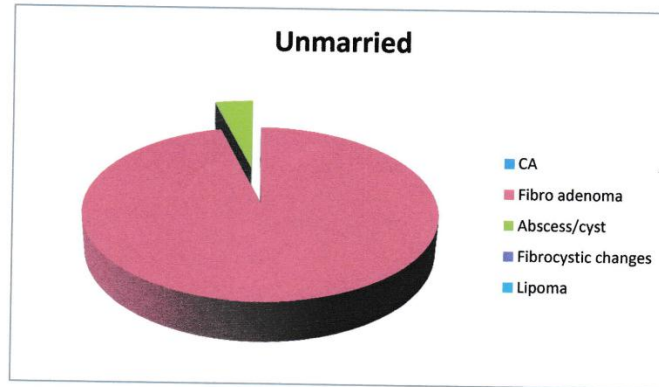


Fig. No.4 Un-Married

TABLE NO. 4

Distribution according to educational status

Education al status	CA		Fibro adenom a		Abscess/cys t		Fibrocysti c changes		Lipom a	
	N	%	N	%	N	%	N	%	N	%
Un- educated	2	62.5	8	20	4	10	2	5	1	2.5
educated	1	29.0	2	49.0	11	20			1	1.8
	6	9	7	9						1

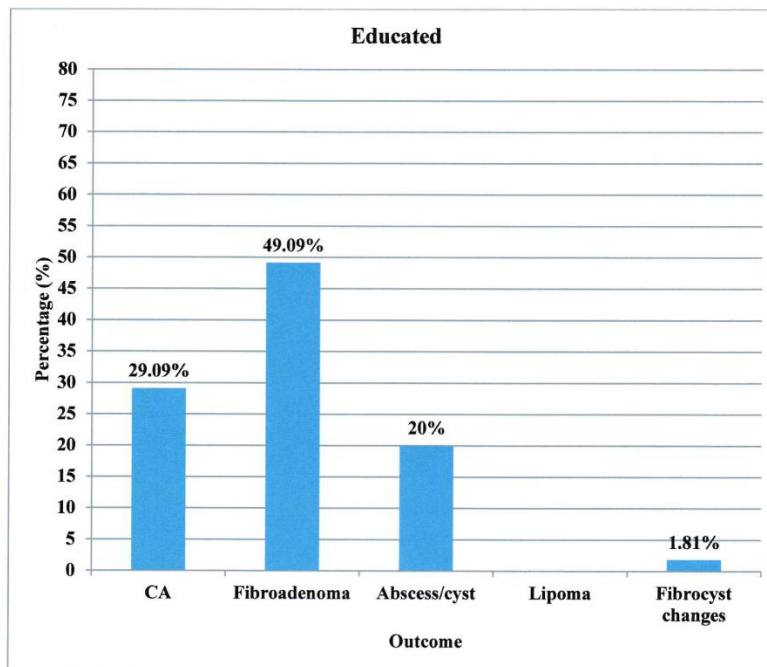


Fig. No.5 Educated

Discussion:-

A palpable breast lump is a common diagnostic problem both for the general practitioner and for the surgeon. It is well accepted dictum that all lumps in breast are malignant unless proved otherwise on tissue diagnosis. In our study, the most common lesions found in females were malignant (43.7%), followed by benign lesions including fibro-adenoma (36.8%), abscess and cyst (15.7%), fibrocystic change (2.1%), Lipoma (2.1%).

Breast cancer was the most common breast disease found in one study (table x) Similar result was obtained by Isaac and colleagues in research held in tertiary hospitals of Karachi. A retrospective record review of 4575 breast lump cases, at the Fatima Jinnah Medical College, Lahore which was of eight years duration showed a 30% frequency of breast cancer [12]. Another study from the Aga Khan University Hospital, Karachi of 500 breast biopsies in one year showed breast cancer accounting for 40%. Talpur et al have reported 35.33% of patients with breast lumps to have a malignant lesion on investigation [13], which is close to our study. These figures are higher than those observed in the western and developed countries, i.e. 19.6% observed at Australia by Fleming et al [14]. The higher incidence in the study compared to the Western world suggests a greater incidence of breast cancer in the population of patients presenting to our surgical OPDs. A significant patient population is illiterate or poorly educated and has a poor awareness of breast cancer. Mean age of carcinoma breast in the UK and USA is more than our region clearly showing differences in our social customs, religious influences and demographic variables.

Fibro-adenoma was the most frequent histopathological diagnosis (36.8%) in our study. This is higher than the reported frequency in England 7.7% [15] and the USA 18.5% [16], but is lower than the Caribbean islands of Trinidad 39.3% [17]. In Karachi, Talpur and colleagues reported that fibro-adenoma was the most common benign breast lump among their patients [18]. Rashid et al showed that 42.1% patients had fibro adenoma breast in their study which was conducted in PIMS in 2005 [19].

Cysts were encountered in 15 patients only, the youngest being 15 years. Breast cysts are generally benign and usually form as a result of the growth of milk glands. Some large cysts feel like lumps. They are most common in premenopausal women in their 30s and 40s. They usually disappear after menopause, but can be found at any age. In our study, fibrocystic disease was found in 2.1% of all cases.

Compared with international studies, fibrocystic breast diseases are most common benign breast lesion in USA 33.9% [16] and UK 37% [20]. In this study factors like age, marital status, contraceptive use, parity and family history and menstrual history were studied. A woman's risk of breast cancer is increased if she has a first degree relative who developed the disease before the age of 50, and the younger the relative when she developed breast cancer the greater the risk [21].

Even though cancer of the breast is strongly age related, majority of the patients seen in this study were young, under the age of 40 years. The mean age at diagnosis is less as compared to that in western countries where majority of carcinoma are seen in postmenopausal women and the mean age is 54 years [22]. Local studies have shown that in our population, females between the ages of forty and fifty years are most commonly affected [23,24]. Thus most of our patients are in younger age group and premenopausal. In a study from Korea Ahn S.H. reported a high incidence of breast cancer in premenopausal women [25].

Breast cancer is found more among the un-educated women, however, fibro-adenoma and breast abscess/cyst are more common among educated women. No case of fibrocystic change is found among educated women. In the research by Isaac and colleagues held in tertiary hospitals of Karachi, it was found that inflammatory diseases are more common in Pakistan due to poor hygiene and low socioeconomic status.

Among the women using oral contraceptive pills, 46.15% developed breast cancer, 38.46% had fibro adenoma and 15.38% had breast abscess. However, among women who never used contraceptive pills 42.7% had breast cancer, 36.6% had fibro-adenoma, 5.9% had breast abscess/cyst, and less than 5% had fibrocystic change and Lipoma. In the researches held by American Cancer society as well various researches in Pakistan, it was found that the use of oral contraceptives slightly increased the chance of developing breast cancer. However, the risk of developing breast cancer decreased by stopping the oral contraceptive use.

All of breast cancers are found in married women. This was in accordance to the research of Safila Naheed held by Jinnah University for women in Karachi that 92.1% cases of breast cancer were married women. One reason will be

that the age group in which breast cancer is common, women are mostly married by that age. In married women, followed by cancer, 19.71 % women had breast abscess/cyst, 16.9% had fibro-adenoma, and less than 3% had fibrocystic change and Lipoma. In 96% of unmarried women fibro adenoma was found. Fibro adenoma is most common in 15-25 year of age so in that age group, mostly women are unmarried.

Conclusion:-

This study concludes that the frequency of breast cancer, inflammatory diseases and fibro adenoma is higher in our set up as compared to the world literature. Breast cancer was the most common disease. This maybe because the study was carried out on a small scale and limited number of cases were included and the duration was short. However the early age of diagnosis shows that there is need of breast care clinics and population screening programs to detect breast cancer as soon as possible. It is recommended that the surgeon managing a case of breast lump in a patient above 30 years should be highly suspicious and cautious so that early detection and management of malignant lumps be carried out.

Ethical consideration:-

1. Consent was taken from the patient
2. Data was confidential.
3. There is no financial conflict of interest in this study

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