

A minority of women who refused had a reason documented in the medical record ;the most frequent reasons were avoidance –denial –fatalism ,fear of diagnosis tests, and fear of surgery or disfigurement .conclusion ;our results suggest that certain demography and clinical characteristics are associated with woman's refuse of diagnosis testing for breast cancer .further study is needed on refusers, characteristics and on how such refusals affect outcome. efforts aimed at identifying and counseling women with abnormal results who refuse follow up are warranted. (2)

(2-2) Research Problem :

Study was to investigate the reasons for the high percentage of women refuse to attend cancer screening program.(1)

(2-3) Justification :

Increase knowledge about screening program and important of screening, early detection from breast cancer to reduce risk factors and reduce complication , The early screening ,the early protection ,the early treatment. And this topic has been researched before .

(2-4)Research objective :

General objective :

-To assess the factor that make women to refuse attending to breast cancer screening program.

Specific objective :-

- To assess the regarding breast cancer ,method of diagnosis and different screening .
- To identified and describe the clinical presentation of breast cancer.
- To determine the association between the risk factor that can make women from screening program and the service that give is it .
- To develop education about disease –measuring of list factor of breast cancer and diagnostic.

Chapter Two

(2-1) Literature Review

breast cancer is cancer that forms in cell of the breast ,breast cancer is the most common malignancy, it is second early to lung cancer, it is leading cause of death from cancer among women.(3)

(2.2) Causes: It's not clear what causes breast cancer. Doctor know that breast cancer occurs when some breast cell begin to growing abnormally.

Breast cancer starts when cell in the breast begin to grow out of control, these cells usually form a tumor that can often be seen on an x-ray or felt as alump, the tumor is malignant (cancer)if the cells can grow into (invade)surrounding tissues or spread to distant areas of the body, most breast cancer begin in the ducts that carry milk to nipple (ductal cancer) some start in the glands that make breast milk (lobuar cancers)there are also other types of breast cancer that are less common start in the tissues in breast, these cancers are called sarcomas and lymphomas and are not really thought of as breast cancers. Although many types of breast cancer can cause a lump in the breast not all do, many breast cancer are found on screening mammograms which can detect cancers at an earlier stage, often before they can be felt, and before symptoms develop. There are other symptoms of breast cancer you should watch for and report to a health care provider, any breast lump change needs to be checked by a health care professional to determine if it is benign or malignant and if it might affect your future cancer risk, breast cancer can spread when the cancer cells get into the blood or lymph system and are carried to other parts of the body.(4)

(2.3) Incidence: In recent years, incidence rates have been the stable in white women and increasing slightly (by 0.3% per year)African American women, breast cancer is more common in these women, compared to women of other races (5).

Survivors: At this time there are more than 3.1 million breast cancer survivors in the United States. This includes women still being treated and those who have completed treatment. Breast cancer is the most common type of cancer in women and is a major public health problem in the United States. One in eight women is expected to be diagnosed some time during their lives.

Etiology (Risk Factors): Age and gender: the incidence of breast cancer is increased with age. Nearly two thirds of breast cancer are found in postmenopausal women usually after 50 years. The reason for the age related increase is thought to be the increased probability of mutagenic changes occurring over a longer life span rather than any instability inherent in aging cells. (Breast cancer may be inherited or non-inherited) (6).

Hormones and Oral Contraceptives: Hormonal replacement therapy at menopause has created a great deal of cancer and controversy because of the increase in incidence of breast cancer associated with it. There is no evidence to suggest a causal relationship between oral contraceptives and incidence of breast cancer. Diet and Body Weight: Animal data and description of epidemiology of breast cancer incidence strongly suggest an association of dietary factors specifically a high fat diet with an increased risk of breast cancer. This claim is largely unproved. Body weight, height, obesity and increase in body mass have been reported to be associated with an increased risk of breast cancer but still is controversial. In obesity fat cells store estrogen. (7)

Benign Breast Disease, Radiation Hazard Alcohol, Family History: If your mother, sister or daughter was diagnosed with breast cancer, particularly at a young age, your risk of breast cancer is increased. Genetic Mutations, Diethylstilbestrol Exposure: Some pregnant women were given DES from the 1940s through the 1960s to prevent miscarriage. Women who were exposed to DES while their mothers were pregnant with them also may have a slightly higher risk of breast cancer later in life. (8)

Eating Unhealthy Food

Exposure to chemicals in cosmetics, Exposure to Chemicals in Food, to Chemicals for Lawns and Gardens ,to Chemicals in Plastic , to Chemicals in Sun screen to Chemicals in Water:(8)

2-4Types: Infiltrating Ductal carcinoma colloid (mucinous) inflammatory page disease –medallary – papillary–tubular.Infiltrating lobular carcinoma noninvasive.(8)

2.5 Diagnosis:

Breast Exam :You doctor will check both of your breasts and lumph nodes in the armpit , feeling for any lumps or other abnormalities, Mammogram: Is an x-ray of breast .mammograms are commonly used to screen for breast cancer .

Breast Ultrasound Uses sound waves to produce images of structures deep within the body .,It is often obtained as part of the examination of a new lump, Biopsy samples are sent to laboratory for analysis where expects determine whether the cell are cancerous and also determine type of cells involved in the breast cancer, Breast Magnetic Resonance Imaging:(MRI)machine uses a magnet and radio waves to create pictures of interior of your breast , before (MRI)you receive an injection of dye.(9)

Ductogram is used to identify the cause of nipple discharge, Staging of breast cancer: Staging is necessary at the time of diagnosis to determine the extent of disease (local versus metastatic), to determine prognosis, and to guide proper management, Range of breast cancer staging from 0 to iv with 0 indicating cancer that is noninvasive or contained within the milk ducts , staging IV breast cancer ,also called metastatic breast cancer, indicates cancer that has spread to other areas of the body (10).

2-6Treatment and drugs: Breast cancer surgery still has central role to play in the management of breast cancer but there has been gradual shift towards more constrictive techniques backed up by clinical trials that have shown equal efficacy between mastectomy and local excision followed by

radiotherapy, It will initially hope that avoiding mastectomy would help in alleviate the considerable psychological morbidity associated with breast cancer but recent studies have shown that over 30 percent of women develop significant and depression following both radical and conservative surgery after mastectomy women tend to worry about the effect of the operation on their appearance and relationship whereas after conservative surgery they may be remain fearful of recurrence, Operations used to treat breast cancer include: Removing the breast cancer (lumpectomy) during lumpectomy , which may be referred to as breast sparing surgery or wide local excision , the surgeon removes the tumor and a small marging of surrounding healthy tissue lumpectomy is typically reserved for smaller tumors., Removing the entire breast (mastectomy) is surgery to remove all of your breast tissue .most mastectomy procedures remove all of the breast tissue –the lobules ,ducts , fatty tissue and some skin , including the nipple and areola (simple mastectomy).in a skin –sparing mastectomy ,the skin over the breast is left intact to improve reconstruction and appearance. Depending on the location and size of the tumor, the nipple may also be spared., Removing a limited number of lymph nodes (sentinel node biopsy)to determine whether cancer has spread to your lymph nodes ,your surgeon will discuss with you the role of removing the lymph nodes that are the first to receive the lymph drainage from your tumor.(10)

If no cancer is found in those lymph nodes ,the chance of finding cancer in any of the remaining lymph nodes is small and no other nodes need to be removed. ,Removing several lymph nodes (axillary lymph node dissection). If cancer is found in the sentinel node, your surgeon will discuss with you the role of removing additional lymph nodes in your armpit, Removing both breasts, some women with cancer in one breast may choose to have their other (healthy) breast removed (contra lateral prophylactic mastectomy) if they

have a very increased risk of cancer in the other breast because of genetic predisposition or strong family history. (10)

Radiation therapy: Radiation therapy uses high-powered beams of energy, such as x-rays, to kill cancer cells. Radiation therapy is typically done using a large machine that aims the energy beams at your body (external beam radiation). But radiation can also be done by placing radioactive material inside your body (brachytherapy). External beam radiation is commonly used after lumpectomy for early stage breast cancer. Side effects of radiation therapy include fatigue and a red, sunburn-like rash where the radiation is aimed. Breast tissue may also appear swollen or more firm. Rarely, more serious problems may occur, such as damage to the heart or lung or very rarely, second cancer in the treated area. (11)

Chemotherapy: uses drugs to destroy cancer cells. If your cancer has a high risk of returning or spreading to another part of your body, your doctor may recommend chemotherapy to decrease the chance that the cancer will recur. This is known as adjuvant systemic chemotherapy. Sometimes given before surgery in women with larger breast tumors. The goal is to shrink a tumor to a size that makes it easier to remove with surgery.

Chemotherapy is also used in women whose cancer has already spread to other parts of the body and may be recommended to try to control the cancer and decrease any symptoms the cancer is causing. Side effects depend on the drugs you receive. (hair loss, nausea, vomiting, fatigue and an increased risk of developing infection. Rare side effects can include premature menopause, infertility, damage to the heart, and kidneys, nerve damage and very rarely blood cell cancer. (12)

Hormone Therapy: Hormone therapy – perhaps more properly termed hormone-blocking therapy – is often used to treat breast cancer that is sensitive to hormones. (estrogen receptor positive, and progesterone receptor positive) cancer. Hormone therapy can be used after surgery or other

treatment to decrease the chance of your cancer returning . if the cancer has already spread ,hormone therapy may shrink and control it. ,Selective estrogen receptor modulator medications act by blocking estrogen from attaching to the estrogen receptor on the cancer cell, slowing the growth of tumors and killing tumor cells. Include tamoxifen, raloxifene (evista) and toremifene (fareston).,Side effects include hot flashes , night sweats and vaginal dryness, Aromatase inhibitors, this drug block the action of an enzyme that converts androgens in the body into estrogen . these drug are effective only in postmenopausal women.

Aromatase inhibitors include anastrozole (arimidex) ,letrozole (femara) and exemestane (aromasin).

Side effects include hot flashes , night sweats ,vaginal dryness , joint and muscle pain , as well as an increased risk of bone thinning (osteoporosis).

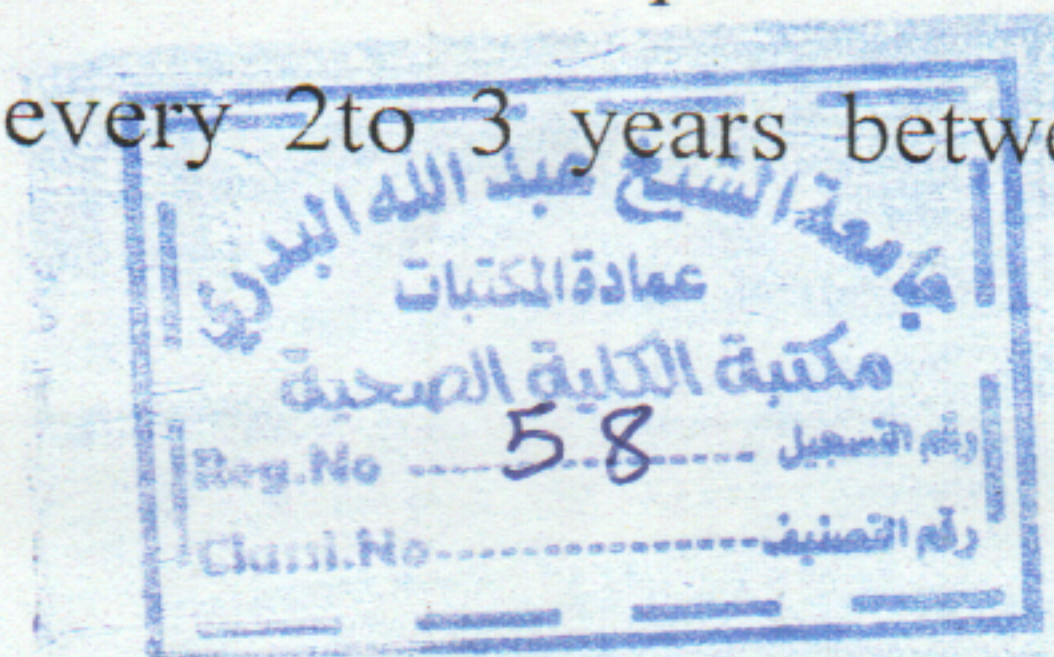
Fulvestrant (faslodex) blocks estrogen receptors on cancer cells and signals to the cell to destroy the receptor .and it is used in postmenopausal women. Side effects that may occur include nausea , hot flashes and joint pain .(13)

2-7Complications: Psychological complications include: Fear ,Anxiety, Loss of sleep, Loss of sexual interest, Depression due to possible physical changes resulting from the intensive treatment., Complications that may occur after the surgery include: Hematoma or buildup of the blood under your skin.,Seroma or buildup of fluid on the site of the surgery ., Lymphedema or swelling of the arm on the side of surgery .,Reaction to the anesthesia. (13)

2-8 Risk factor that make women's to refused attending breast cancer programs: Fear of diagnostic tests ,Fear of surgery ,Disfigurement ,Anxiety ,Shame, Shyness and Fear of staff and result.

2-9 Breast cancer Screening programs: Breast cancer screening is the medical of asymptomatic, apparently healthy women for breast cancer in an attempt to achieve an earlier diagnosis .the assumption is that early detection will improve outcome ,a number of screening tests have been employed ,

including clinical and self-breast exams ,mammography ,genetic screening .ultrasound ,and magnetic resonance imaging. a clinical or self-breast exam involves feeling the breast for lumps or other abnormalities ,medical evidence however ,does not support its use in women with a typical risk for breast cancer.(12) The use of mammography in universal screening for breast cancer is controversial as it may not reduced all-cause mortality and causing harms through unnecessary treatment and medical procedure. many national organizations recommended it for most older women .in the United State screening mammography women at normal risk for breast cancer ,is only recommended every two years in women between the ages of 50and 74(4) As well as all x-ray ,mammograms use doses of ionizing radiation to create images . these then analyzed for abnormal findings .it is usual to employ lower –energies of 17.5and 19.6 kev] and Rh [20.2and 22.7kev] than those used for radiography of bone , ultrasound, ductography ,positron emission mammography (PEM),and magnetic resonance imaging (MRI)are adjuncts to mammography, ultrasound is typically used for further evaluation of mammography or palpable mass not seen on mammograms . duct grams are still used in some institutions for evaluation of bloody nipple discharge when the mammogram is non –diagnostic .MRI can be useful for further evaluation of questionable findings ,as surgical evaluation in patient with known breast cancer , in order to detect additional lesions that might change the surgical approach , for example ,from breast-conserving lumpectomy to mastectomy .other procedures being investigated include tomasynthesis for the average woman ,the U.S. preventive services task force recommended (2009) mammography every two years between the ages of 50 years old and 74 years the American college of radiology and American cancer society recommend yearly screening mammography starting at age 40 , the Canadian task force on preventive health care(2012) and the European cancer observatory (2011) recommend mammography every 2to 3 years between



ages 50 and 69 , these task force reports point out that in addition to unnecessary surgery and anxiety ,the risks of more frequent mammograms include a small but significant increase in breast cancer include a small but significant induced by radiation, additionally mammograms should not be performed with increase frequency patients undergoing breast surgery ,including breast enlargement, mastopexy, and breast reduction, the Cochrane collaboration (2013)concluded after ten years that trial with adequate randomization did not find an effect of mammography screening on total cancer mortality ,including breast cancer .the author of this Cochrane review write 'if we assume that screening reduces breast cancer mortality 15% and that over diagnosis and over -treatment is at 30% it means that for every 2,000 women invited for screening throughout 10years ,one will avoid dying of breast cancer and would not have been diagnosed if there had not been screening ,will be treated unnecessarily .furthermore ,more than 200 women will experience important psychological distress including anxiety and for years because of false positive finding "the author conclude that the time has come to re-assess whether universal mammography screening should be recommended for any age group, they state that universal screening may not be reasonable , the Nordic Cochrane collection updated in 2012 and stated that advanced in diagnose and treatment make mammography screening less effective today, rendering it "no longer effective ". they conclude that "it therefore no longer seems reasonable to attended " for breast cancer screening at any age, and warn of misleading information on the in internet mammography has a false-negative (missed cancer) rate of at least ten percent . this is partly due to dense tissue obscuring the cancer the appearance of cancer on mammograms having a large overlap with the appearance of normal tissue .a meta-analysis review of programs in countries with organized screening found a52% over-diagnosis rat.(13)

Risk and Benefits: The use of mammography as screening tool for the detection of early breast cancer in otherwise healthy women without symptoms is controversial. Keen and Keen indicated that mammography starting at age fifty saves about 1.8 lives over 15 years for every 1,000 women screened, this result has to be seen against the adverse effects of errors in diagnosis over treatment, and radiation exposure. The Cochran analysis of screening indicates that it is "not clear whether screening does more good than harm" according to their analysis, 1 in 2,000 women will undergo unnecessary breast cancer treatment. Additionally, 200 women suffer from significant psychological stress due to false positive results. Newman points out that screening mammography does not reduce death overall, but causes significant harm by inflicting cancer scare and unnecessary surgical interventions'. The Nordic Cochran collection notes that advances in diagnosis and treatment of breast cancer screening are no longer effective in breast cancer, and therefore for healthy women as the risk might outweigh the benefits, often women are quite distressed to be called back for a diagnostic mammogram. Most of these recalls will be false positive results. Of every 1,000 U.S. women who are screened, about 7% will be called back for a diagnostic session (although some studies estimate the number to be closer to 10% to 15%), about 10 of these individuals will be referred for a biopsy; the remaining 60 cases are found to be of benign cause. Of the 10 referred for biopsy, about 3.5 will have an early stage cancer and 6.5 will not. Of the 3.5 who have cancer, about 2 will have an early stage cancer that will be cured after treatment. Mammography may also produce false negatives. Estimates of the number of cancers missed by mammography are usually around 20%, reasons for not seeing the cancer include observer error, but most frequently it is because the cancer is hidden by other dense tissue in the breast, and even after retrospective review of the mammogram, the cancer cannot be seen. Furthermore, one form of breast cancer, lobular cancer, has a growth pattern

that produces shadows on the mammogram that are indistinguishable from normal breast tissue.(13)

Other risk: The radiation exposure associated with mammography is a potential risk of screening, which appears to be greater in younger women. The largest study of radiation risk from mammography concluded that for women 40 years of age and older, the risk of radiation-induced breast cancer was minuscule, particularly compared with the potential benefit-to-risk ratio of 48.5 lives saved for each life lost due to radiation exposure. Organizations such as the National Cancer Institute and United States Preventive Task Force take such risk into account when screening and formulating screening guidelines. The majority of health experts agree that the risk of breast cancer for asymptomatic women under 35 is not high enough to warrant the risk of radiation. Sensitivity of the breast in women under 35 is possibly greater than in older women. Most radiologists will not perform screening mammography on women under 40, however, if there is significant risk of cancer in particular patients (BRCA positive, positive family history, palpable mass), mammography may still be important. The radiologist tries to avoid mammography by using ultrasound or MRI. The effect of these women in their lifetimes, estimate of this overdiagnosed and unnecessarily treated per life saved when 2,000 women are screened for 10 years, while screening between ages 40 and 50 is still controversial. The preponderance of evidence indicates that there is some small benefit in terms of early detection. Currently, the American Cancer Society, the American College of Radiology and the American Congress of Obstetricians and Gynecologists encourage mammograms begin at age 40. The National Cancer Institute encourages mammograms one to two years for women age 40 to 49. In contrast, the American Society of Physicians, a large internal medicine group of physicians, a large internal medicine group, has recently endorsed individualized screening plans as opposed to wholesale biannual screening of women aged 40 to 49 in

2009, the U.S. preventive service task force recommended that screening of women aged group their report says that the benefits of screenings before the age of 50 do not outweigh the risks. (14)

Pain: The mammography procedure can be painful reported pain rate range from 6-76% with 23-95% experiencing pain or discomfort, experiencing pain is a significant predictor in women not re-attending. (14)

Scoring: Mammogram results are often expressed in terms of the BI-RADS assessment category, often called a "BI-RADS score", "the category range from 0 (incomplete) to 6 (known biopsy-proven UK mammograms are scored on a scale from 1-5 (1=normal, 2=benign, 3=indeterminate, 4=suspicious of malignancy, 5=malignant), evidence suggests that accounting for genetic risk factors improve breast cancer risk prediction.

In the past several years, the "work-up" process has become highly formalized it generally consist of screening mammography. diagnostic mammography, biopsy when necessary, often performed via stereotactic core biopsy or ultrasound guided core biopsy after screening mammogram, a guided core biopsy. after a screening mammogram some women may have area of cancer which cannot be resolved with only the information available from the screening mammogram they would then be called back for diagnostic mammogram", this is phase essentially means a problem-solving mammogram during this session, the radiologist will be monitoring each of the additional film they are taken by radiographer. Depending on the nature of finding, ultrasound may often be used as well. generally, the cause of the usual appearance is found to be benign. if the cause cannot be determined to be benign with sufficient certainty, a biopsy will be recommended, the biopsy procedure will be use obtained actual tissue from the site for the pathologist to examine microscopically determine the precise cause of the abnormality. in the past biopsies were most frequently done in surgery, under local or general anesthesia. the majority are now done with needles in conjunction with either

ultrasound or mammographic guidance to be sure that the area of concern is the area that biopsied .these core biopsies require only local anesthesia ,similar to what would given during a minor dental procedure.(12)

Breast examination :is (either (CBE)by a health care provider or by self-exams)were once widely recommended. however are not support by evidence and may ,like mammography and other screening method that produce false positive results, contribute to harm ,the use of screening in women without symptoms and at low risk is thus controversiala 2003 Cochranere view found screening by breast self –examination is not associated with lower death rates among women who report performing breast self-examination and dose ,like other breast cancer screening method .increase harms in team of increased numbers of being lesions identified and an increased number of biopsies performed they conclude "at present breast self-examination cannot be recommended there was no high quality evidence looking at clinical breast examination.(13)

Molecular breast cancer imaging: Molecular breast imaging is un clear medicine technique that is currently under study ,it shows promising results for imaging people with dense breast tissue and may have accuracies comparable to MRI may better than mammography in some people with dense breast tissue ,detection two to three times more cancers in this population, it is possible to reduce the dose of radiation used an earlier alternative technique suited to dense breast tissue, scinti mammography is now not recommended by the americium cancer society ,which states "this test cannot show whether an abnormal area is cancer as accurately as a mammogram and it's not used as a screening test some radiologist believe this test may be helpful in looking at suspicious areas found by mammography is still unclear .(13)

Ultrasonography: Is a diagnostic aid to mammography adding ultrasonography testing for women with dense breast tissue increase the detection of breast cancer ,but also increases false positive.(13)

Magnetic resonance imaging: MRI has been shown to detect cancer not visible on mammogram .the chief strength of breast MRI is it is very high negative predictive value ,a negative MRI can rule out the presence of cancer to a high degree of certainty ,making it an excellent tool for screening in patients at high genetic risk or radio graphically dense breasts, and for pre-treatment staging where the extent of disease is difficult to determine on mammography and ultrasound ,MRI can diagnose benign proliferative change, fibro adenomas ,and other common being finding at a glance ,,often eliminating the need for costly and unnecessary biopsies or surgical procedures ,the spatial and temporal resolution of breast MRI has increased markedly in recent years ,making it possible to detect or rule out the presence of small in situ cancer ,including ductal carcinoma in situ. there is some disadvantage .for example ,although it is 27-36% more sensitive ,it has been claimed to be less specific than mammography as result ,MRI studies may have up to30%more false positives ,which may have undesirable financial and psychological costs on the patient ,also ,MRI procedures are expensive and include intravenous injection of a gadolinium contrast ,which has been implicated in a rare reaction called nephrogenic systemic fibrosis (NFS). (13,14)

BRCA testing :Genetic testing dose not detect cancer ,but may reveal a propensity to develop cancer .women who are known to have a higher risk of developing breast cancer usually undertake more aggressive screening programs, a clinical practice guideline by the US preventive service task force recommends against routine referral for genetic counseling or routine testing for BRCA mutations .on fair evidence that the harms outweigh the benefits., it also encourage a referral for consoling and testing in women who

have family history that indicates they have an increased risk of a BRCA mutation, on fair evidence of benefit about 2% of American women have family histories that indicate an increased risk of having a medically significant BRCA mutation.(13)

Other: The nipple aspirate test is not indicate for breast cancer screening, Optical imaging, also known as diaphanography (DPG), multi-scanning, is the use of transillumination to distinguished tissue variation , in early stage (13)

May previous study was conducted in this topic , study about epidemiology of breast cancer in Europe and Africa written by garyopeymi, Abdurrahman jur , the epidemiology similarities and different in breast cancer between white European women and African women with aim optimizing care for women with breast malignancy across the world , by result level among African women to identify genetic factors that may contribute to the risk of developing breast cancer and improvement in the health care system

Also previous study risk of breast cancer, health beliefs and screening behavior among Turkish a academic women and house wives, by eurgorguler, mine bekur was examine health beliefs, screening behavior and risk for developing breast cancer in a academic women and house wives ,by result risk of developing breast cancer in academic women is higher than for house wives (p less than 0,001) sample of 415 women academic and 249house wives.

Also previous study pattern of breast lesion diagnose in Atbara 2012-2013 presented by kdegia sir elkhatir, aishamohammed was to the spectrum of breast disease diagnosed by FNAC in Atbara , result by Atbara carcinoma , FNAC is useful , simple teaching is diagnosis of breast lesion.