Project On

Survey on cancer of the breast in women who are pregnant and breastfeeding mother

Submitted To

Department of pharmacy

Faculty of Allied Health Sciences

Daffodil International University

[In the partial fulfillment of the requirements for the degree of Bachelor of Pharmacy]

Submitted By

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APPROVAL

The Daffodil International University's Department of Pharmacy, Faculty of Allied Health Science, has accepted this project survey on breast cancer in pregnancy and breast-feeding mother as satisfactory for partially fulfilling the requirements for the degree of Bachelor of Pharmacy. Its style and contents have also been approved.

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DECLARATION

With partial compliance to the bachelor of pharmacy degree requirement (B. Pharm), I hereby announce that I am working on this project study under the guidance of "Mr. Shadhan Kumar Mondal," Lecturer, Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University. I now certify that this project is all my own. Furthermore, I declare that neither this project nor any portion of it has been presented anywhere for a degree or bachelor's award.

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I thank God for providing me with the health and well-being I needed to finish this assignment. I would like to sincerely thank **Professor Dr**. **Muniruddin Ahamed**, Department Head of Daffodil International University's Pharmacy Department, for providing me with all the resources I needed to do this research.

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DEDICATION

To friends & family

ABSTRACT

With over two million cases reported in 2020, cancer of the breast (BC) is among the most common cancer in women around the world. Prevalence and mortality rates have gone up over the last 30 years because of changes in risk factors, better health records, and earlier diagnosis of cancer. A lot of things can put you at risk for breast cancer. These include things you can change and things you can't change. At the moment, about 80% of people with BC are over 50 years old. Stage and molecular group both play a role in survival. When it comes to their appearance, behavior, and shape, invasive breast cancers are like a wide range of tumours. BC can be split into molecular groups based on the levels of mRNA gene expression. These are the luminal A, Lumen B, HER2-enriched, and basal-like. The molecular subtypes help us understand new ways to treat cancer and divide people into groups that have an effect on how we care for BC patients. The eighth version of the TNM classification describes a new stage system for breast cancer that takes biological factors into account along with anatomical features. Breast cancer is hard to treat because it requires a lot of different methods, such as surgery, radiation therapy, chemotherapy, hormonal treatment, or biological therapies given in different orders. The purpose of this study was to examine the present status of breast cancer and the extent to which it affects pregnant women. Following an overview, there are twenty-two identically worded questions on the form. There were hundred and fifty participants in this research. This experiment was conducted at the National Institute of Cancer Research and Hospital (NICRH). According to a survey, 91.3% of people were informed they had breast cancer before ever receiving that diagnosis. 8.7% of the population is unaware of what breast cancer is. We can therefore identify which type of asthma is more common. According to this report, 84.1% of individuals have received a breast cancer diagnosis. 15.9% of patients do not exhibit any of the signs and symptoms associated with breast cancer. The management of a pregnant woman with breast cancer is contingent upon the stage of the disease, the stage of the pregnancy, and the overall health of the mother. Chemotherapy, radiation therapy, surgery, or a combination of these may be used. Pregnant women should regularly examine their breasts and should contact their doctor right away if they see any changes or something strange. The likelihood of survival for both the mother's body and the unborn child may increase with early detection and treatment of breast cancer.

Keywords: Breast cancer statistics, risk factors, types, diagnoses, prognoses, markers, and treatments.

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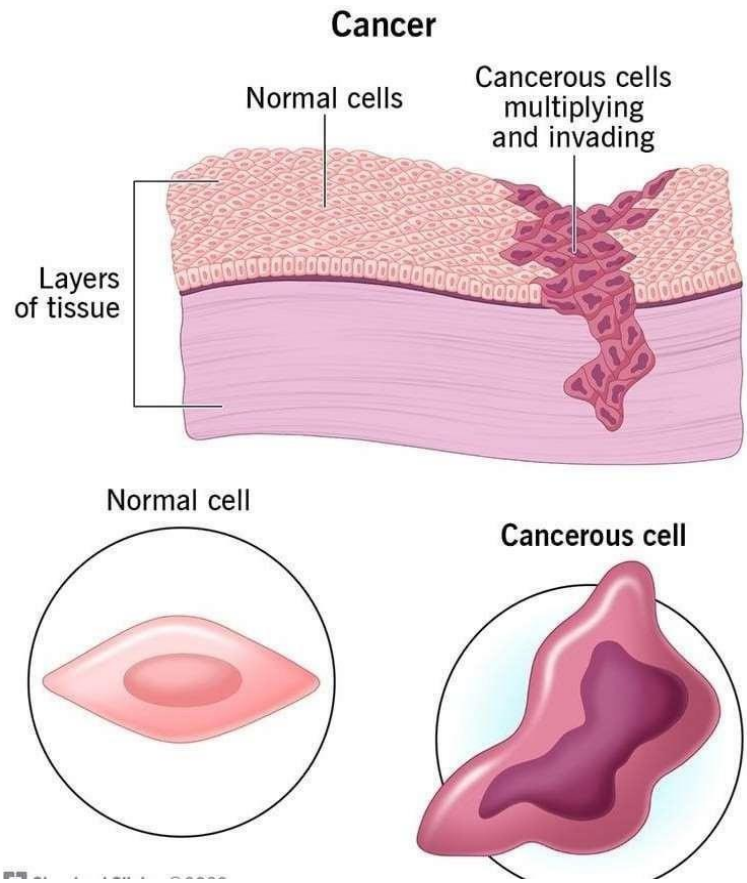
Introduction

1.1. Cancer

Cancers are a class of diseases typified by aberrant development of cells that have the potential to spread. Benign tumors do not enlarge. Symptoms include weight loss, gastrointestinal problems, persistent coughing, irregular bleeding, and lumps. These symptoms could be related to cancer or another illness. [1] Humans may be affected by more than 100 malignancies. Smoking causes 22% of cancer patients' deaths.10% are caused by binge drinking, inactivity, poor diet, or obesity.[2-4] There are also concerns about pollution, diseases, and radiation. In poor countries, 15% of cancer cases are caused by Helicobacter pylori, hepatitis B, hepatitis C, human papillomavirus, Epstein-Barr virus, and HIV. These substances change a cell's genes. [3] Numerous genetic alterations are required for cancer. Of all malignancies, 5–10% are hereditary. [4]



Symptoms and screening tests can be used to identify cancer. Medical imaging as well as a biopsy verify the diagnosis. A healthy weight, avoid alcohol, eat a diet high in fruits, vegetables, and whole grains, consume resistant starch, be immunized against specific diseases, Reducing your consumption of red and processed meat as well as your exposure to the sun can help reduce your chance of getting some types of cancer. [6– 7]It is wise to have colon and cervical cancer screenings.

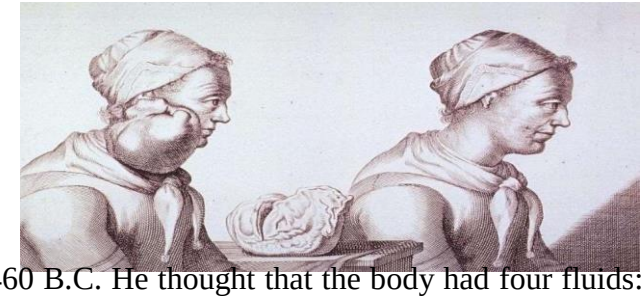
Fig 01: er **[Courtesy; google]**

Regarding the breast cancer test, there is discussion. Cancer is treated with radiation therapy, targeted therapy, chemotherapy, and surgery. The management of pain and other symptoms is essential. Hospice care is necessary for those with terminal illnesses. [8] A person's prognosis depends on the kind and stage of their cancer at the start of treatment. In five years, in the industrialized world, eighty percent of children under fifteen will still be alive. After five years, 66% of cancer patients in the United States are still living. Ninety-five million people had cancer in 2015. [10] In 2019, there were 10 million cancer-related deaths worldwide and 23.6 million new instances of the disease. Compared to the previous ten years, these figures are increased 26% and 21%. [11] Lung, prostate, colon, and stomach cancers are common among men. Women often develop cancers of the cervix, colon, lungs, and breast. Of all new cancer cases each year, 40% would be other types of skin cancer except melanoma.[12] Non-Hodgkin lymphoma is more common in children in Africa than acute lymphoblastic leukemia. Of children under 15, 165,000 have cancer in 2012. In industrialized nations, there is an increased prevalence of many cancer kinds that worsen with age. Rates are rising in emerging countries because people are living longer and leading diverse lifestyles. In 2010, annual global spending on cancer was $1.16 trillion. [13]

1.2. History of Cancer

The Over 3,500 years ago, the Egyptians were among the initial people to notice the illness. Both Edwin Smith's and George Ebers' papyri gave pretty correct descriptions of the illness. In one of the accounts, the lumps in the breast that can't be cured are talked about.[15]

Hippocrates, who is known as the "Father of Western Medicine," said that breast cancer was a disease



of the humours in 460 B.C. He thought that the body had four fluids: blood, saliva, yellow bile, as well as black bile. He said that having too much black bile might cause cancer. When breast cancer is too dark, hard tumours can be seen that will burst open and release a black fluid if they are not handled. He called it karkinos, which is Greek for "crab," because the tumours looked like they had

limbs, like a crab's legs.[16]

After that, in 200 AD, Galen also wrote about the cancer. He also said that too much black bile was bad, but unlike Hippocrates, he thought that some tumours proved more harmful than others. He suggested using medicines like opium, oil from castor beans, licorice, sulphur, salves, and more to treat breast cancer. Before this point in history, breast cancer was an illness affecting the whole body, so treatment wasn't even thought about.[17]

People believed Galen's ideas about breast cancer until the 1600s. In 1680, Francois the la Boe Sylvius, a French doctor, began to question the absurd explanation of cancer. He thought that having too much black bile did not cause cancer. He thought it was caused by a chemical process which changed the acidity of lymph fluids to acridity. In the 1730s, Claude-Deshais Gendron, a doctor from Paris, also disagreed with Galen's general theory. He said that cancer started if nerve and connective tissue merged with lymph vessels.[18]

In 1713, Bernardino Ramazzini came up with the idea that the reason nuns get breast cancer so often is because they don't have sex enough. Ramazzini said that if you don't have regular sex, your reproductive systems, like your breasts, could break down and get cancer. Friedrich Hoffman, a researcher from Prussia, thought that women who were having regular sex yet still got cancer were having "vigorous" sex. It's possible that this is blocking the venous system.[19]

A Scottish surgeon named George Beatson found that taking out one of his patients' ovaries made her breast tumour smaller in 1895. As word spread, more and more doctors started taking out both ovaries and tonsils when women had breast cancer. When the ovaries were taken out, the tumour got smaller because the oestrogen from the ovaries helped the tumour grow. Taking the ovaries out made the tumour smaller.

Next, oestrogen was made by the adrenaline glands in these women who did not have eggs. As of 1952, Charles Huggins was taking out a woman's adrenal gland (called an adrenalectomy) to stop the tumour from getting oestrogen. Rolf Lefft and Hubert Olivecrona started taking out the pituitary gland, which is another place where oestrogen production is sped up.[20]

1.3. Epidemiology of Cancer

According The World Health Organization (WHO) says that 107.8 million Disability-Adjusted Living Years (DALYs) are lost each year because of cancerous neoplasms, with 19.6 million of those being due to breast cancer. Through cases reported in 2020 [21], breast cancer is the most common cancer in women around the world. More than two-fifths of the new cancers diagnosed in women in the US will be breast cancer [22]. The GLOBOCAN data from 2018 shows that the Human Development Index (HDI) is highly and positively linked to the age-standardized rate of incidence (ASIR) of breast cancer. The ASIR was highest in countries with a very high HDI (75.6 per 100,000), while the number was over 200 percent lower in countries with a medium or low HDI (27.8 per 100,000) as well as 36.1 per 100,000 people.[23]

Breast cancer is the most common type of cancer in women and the main reason women die from cancer around the world. Breast cancer killed 684,996 people around the world in 2015, [26]with a rate of 13.6 deaths per 100,000 people (age-adjusted). The highest rates of occurrence were found in developed areas, but 63% of all deaths in 2020 were in the developing nations of Asia and Africa.[24] In a high-income country, most women who get breast cancer will live. In most economically disadvantaged nations and many middle-income countries, the opposite is true.[27]

As a measure of 5-year survival rates , cancer of the breast mortality-to-incidence ratio (MIR) was 0.30 around the world in 2020 [25]. When the type of breast cancer was taken into account, the 5-year mortality rate for localised cancer was 89.6% and for regional cancer it was 75.4% in places with well-developed health care.[28] In Costa Rica, India, the Philippines, Saudi Arabia, and Thailand, where things aren't as well developed, 76.3% of people with localised breast cancer and 47.4% of people with regional breast cancer lived.[26,29,30,31,32]

1.4. Symptoms of Cancer

There It starts in the tissue of the breast when cells start to grow. This is called breast cancer.In the United States, cancer of the breast is the second most common type of cancer found in women, after skin cancer. But men can also get breast cancer. Cancer of the breast can happen to anyone because all parties is born with some.

The number people who survive breast cancer has been going up. Also, the amount of people who die from breast cancer is slowly going down. A lot of this is because a lot of people are raising awareness about breast cancer and giving money to study.

Thanks to improvements in breast cancer screening, doctors can find breast cancer earlier. It is much more probable that the melanoma can be cured if it is found early. Even if breast cancer is unable to be treated, there are many ways to make people live longer. Researchers who study breast cancer are making new discoveries that help doctors choose the best ways to treat the disease.

Some symptoms and indications of breast cancer are:

- A bump or thick spot on the breast that feels distinct compared to the rest of the tissue around it.
- A nipple that stands up straight or turns inward.
- Changes in the breast skin's colour. If you have white skin, your breast skin could appear pink or red. If you have brown or black skin, the skin on your breasts may look paler than the rest of your chest, or it might look red or purple.
- Changes in how big, round, or pretty a breast is.
- There are changes in the layer of skin over the breasts, like skin that has bumps or looks like orange peel.
- Having clothing on the breast peel, flake, crust, or scale.[36]

1.5. Causes of Cancer

Mutations, which are changes to the DNA in your cells, are thought to be the main reason why people get cancer. Genetic changes can be passed down through families. In some cases, the effects of external factors may also show up after the baby is born.

Here are some examples of toxins, which are outside factors that could lead to cancer:

- Some of the things in the environment that can cause cancer are asbestos, booze, ultraviolet (UV) rays from cigarettes, pollutants in the air, contaminants in water and food, along with other a small amount chemical carcinogens.
- Biological toxins such as viruses, bacteria, and parasites can all lead to cancer. A WHO Trusted Source states that approximately 33 percent of cancer-related fatalities may be attributable to smoking, consuming alcohol, having a high body mass index (BMI), eating a diet low in fruits and vegetables, and not getting enough exercise.[37–38]

1.6. Classification of Cancer

Based on the tissue or organ in which they initially manifested, cancers are categorised. Carcinoma is a kind of cancer that originates in epithelial tissue, of which breast cancer is one example. A specific layer of skin is made up of this tissue.
Different types of cancer can be put into groups based on the type of tissue they start in. For example,

- A carcinoma is a disease of the epithelial cells, which include the lining of the digestive system and mucous membranes. The National Cancer Institute says that eighty to 95% of cancer cases are carcinomas.
- Cancer that begins in the bone marrow is called leukaemia.A particular kind of cancer called lymphoma originates in the lymphatic system, which includes the lungs, spleen, and thymus. This system links the hormone system and the defence system.
- Mixed cancers start in any number of types of cells, which may come from different groups. Plasma cells, which typically occur in the blood, are where this type of myeloma grows. It usually shows up in the bone marrow.
- Sarcomas are a kind of cancer that can spread to other organs and tissues; they begin in connective cells. Individuals under 40 are more likely to get sarcoma.

- A doctor can tell the difference between the different types of cancer because the cancer cells look a
- little different. To give the best care to their patients, oncologists need to know how to talk about the different types of cancer.[39]

1.7. Breast Cancer

A type of cancer that starts in the breast tissue is referred to as breast cancer. There are several indicators of breast cancer, such as the presence of a lump, changes in breast shape, skin dimples, nipple fluid.

Skin patch that is red and scaly, or an inverted nipple. If the disease has spread to the extremities, the patient may have symptoms like yellowing of the skin, breathing difficulties, enlarged lymph nodes, and bone pain. [40]

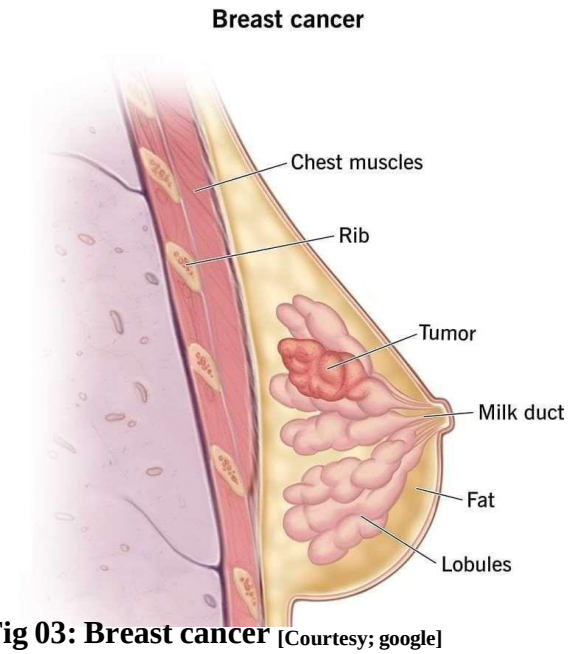


Fig 03: Breast cancer **[Courtesy; google]**

A personal or family history of breast cancer, ionizing radiation, early menarche, inactivity, alcoholism, hormone replacement therapy after menopause, obesity, old age, and delayed or absent childbirth are risk factors for breast cancer development. Another significant risk factor is a personal or family history of breast cancer.[41] One's inherited genetic predisposition can be the cause of five to ten percent of cases [42]. For instance, this inherited susceptibility has been connected to the genes BRCA1 and BRCA2.

The cells lining milk ducts and the lobules that supply the ducts with milk are where most cases of breast cancer start. Ductal carcinomas are cancers that start in the ducts, while lobular carcinomas are cancers that start in the lobules. There could be over eighteen distinct subtypes of breast cancer. One example of a precursor lesion that evolves into an actual cancer is ductal carcinoma in situ. A biopsy is required to confirm a breast cancer diagnosis. Excision of suspect tissue is done for microscopic analysis. [43]

Further testing is carried out following a diagnosis to see whether the cancer has spread to other parts of the body and to determine which treatment has the best chance of being effective. Due to uncertainties regarding the potential advantages and disadvantages of breast cancer screening, it is controversial. According to the results of a Cochrane review published in 2013, it is not possible to determine whether mammography screening is harmful or beneficial. This is because many women who are diagnosed with the disease are not actually affected by it. [44] In 2009, the United States Preventive Services Task Force conducted study and discovered evidence of benefit in those between the ages of 40 and 70. Women who are 50 to 74 years old are.

The committee recommends that screening be done every two years [45]. For people at high risk of breast cancer, anti-cancer medications such as raloxifene and tamoxifen may be an option when combined with other preventive measures. Another possible preventive strategy for high-risk women is surgical removal of both breasts. Cancer patients have access to a variety of treatment options, including surgery, radiation therapy, chemotherapy, hormone therapy, targeted therapy, and many more. A mastectomy is one of the more extreme surgical treatments; other possibilities include breast-conserving techniques. [46] Breast reconstruction can be performed either later on or concurrently with the initial procedure. Increasing the patient's quality of life and reducing their pain are the main goals of treatment when cancer has spread to other bodily parts. Treatment outcomes for breast cancer might vary depending on the type of cancer, patient age, and stage of the disease.Seventy to ninety percent of survivors in the USA and England survive after five years [47]. There are numerous underdeveloped countries with lower five-year survival rates. With one-fourth of all instances occurring in women, breast cancer is the most common type of cancer. In 2018, the disease claimed the lives of 627,000 people, and 2 million new cases were registered. [48]

1.7.1. History of Breast cancer

Humoralism, which held that disorders involving the body's fluids, particularly black bile, formed the basis for medicine from the Greeks until the 17th century. Divine justice is another name for it. [51] In the year 548, Aetios of Amida, Theodora's court doctor, suggested that she have a mastectomy.Before the seventeenth century, when doctors knew more about the circulation system, they didn't connect breast cancer to lymph nodes in the armpit. French surgeon Joseph Louis Petit did full mastectomy operations that included armpit.

To reduce the chance of recurrence, remove lymph nodes. [52] Petit's technique was inspired by Georges Peyrilhe, who, in an attempt to enhance the prognosis, excised the pectoral muscle beneath the breast. Practitioners of the 17th century such as Nicolaes Tulp were not accepted by doctors when he said, "the solely medicine is a timely surgery." This was because of bad results and patient safety. In the middle of the 17th century, Richard Wiseman wrote that after thirteen mastectomies, only two patients were healed and eight killed soon after the surgery from cancer that had spread. Early treatment for breast cancer was very cautious. As

a way to lower acidity, detox purges, donating blood, and alkaline arsenic were given to the patients. In 1664, hemlock juice treatments were used to treat Anne of Austria's total of breast cancer. As the bumps got bigger, the King's medic used arsenic creams on them. In 1666, the king's guest was in terrible pain and died. As more breast cancer treatments failed, people turned to quack, herbal, chemist, and pharmacy remedies. Not having anaesthesia and antiseptics during a mastectomy made it painful and dangerous. New ideas about how breast cancer starts and spreads came about because of discoveries in anatomy in the 18th century. John Hunter said that brain fluid led to breast cancer. Some doctors thought that milk in the mammary glands caused cancer. Different ideas were put forward about how breast stress could lead to cancerous changes. Breast lumps and swellies caused arguments about whether they were hard tumours or early stages of benign cancer. Different doctors had different ideas about urgent treatment. Benjamin Bell said that the whole breast should be taken out, even if only a small part of it was sick. [53] Before the 19th century, breast cancer was very rare. Better cleanliness and disease control made people live longer. In the past, most women passed before they got breast cancer. Scientific American suggested pressure treatment in 1878 as a way to create local ischemia while surgery wasn't an option. Radical mastectomy was first done by William Stewart Halsted in 1882, with the help of aseptic method and anaesthesia. The lymph nodes, chest muscles, and both breasts were taken out during the Halsted radical mastectomy. This hurt and limited the person for a long time, but it was necessary to keep the cancer from coming back. Twenty-year mortality rates went from 10% to 50% after Halsted's radical mastectomy. In the decades between 1920 and 1930, ways to track the growth and spread of breast cancer were created. In 1926, For the British Ministry of Health, Janet Lane-Claypon wrote the first case-controlled research on the epidemiology of breast cancer. [54] In Europe in the 1950s, radical mastectomies were replaced with procedures that spared the breasts. Sometimes, radiation therapy was done after the process. Cancer along with Common Sense by George Crile Jr. says that people with cancer should know what kinds of treatments are available to them. Rachel Carson along with Crile ended up being friends after Crile had a major mastectomy in 1960 because she had breast cancer. Finally, Jerome Urban backed radical mastectomies until.

In 1963, the chances of living ten years after surgery were about the same as those for a total mastectomy. Crile had doubts about the well-known Halsted radical mastectomy after Carson died in 1964. In 1973, the publication What Women Must Know About Cancer in Breasts came out. Betty Ford was told she had carcinoma of the breast in 1974, which led to an honest talk about the treatments

that were out there. [55] In the 1970s, more gentle medicines were created after scientists learned more about metastasis. This made people think of cancer to be a disease that affects the whole body. [56]

Hundreds of women who had completed standard therapy requested and received high-dose stem-cell transplants during the 1980s and 1990s. 15–20% of the women passed away as a result of poor treatment. The Nursing Staff Health Study and the Women's Health Initiative both found that hormone replacement therapy raised the chance of getting breast cancer [1, 2]. [57]

1.7.2. Symptoms of Breast cancer

The following are a few of the warning signs and symptoms of breast cancer:

- ✓ A thickening or protrusion in the breast that is different in texture from the surrounding tissue.
- ✓ Changes to the look, size, or form of one or both breasts
- ✓ Dimpling or other changes to the skin surrounding the breasts could indicate breast cancer.
- ✓ One that has lately been turned inside out.
- ✓ Peeling, scaling, crusting, or flaking of the skin of the breasts or the pigmented area surrounding the nipple (areola) could indicate an atopic dermatitis reaction.
- ✓ Pitting and variations in the colour of your breast skin that resemble the peel of an orange[58–60]

Fig 04 : Symptoms of Breast cancer [Courtesy; google]

1.7.3. Risk Factors of breast cancer

Breast cancer risk factors include:

- Older
- Genealogy
- BRCA2, BRCA1 (more frequent among Ashkenazi Jews), and CHEK2 mutations.
- Hormones (natural and administered)[61]
- Period before 12
- Past breast cancer
- Previous noncancerous breast conditions.[62]

Lifestyle factors may raise breast cancer risk in men and women.

- Chubby
- Insufficient exercise
- Booze.

Radiation and benign breast disease are also linked.[63]

1.7.4. Causes of breast cancer

Breast cancer may occur as a result of aberrant cells in your breast proliferating and growing. The exact cause of this process's first initiation, however, remains unknown to researchers. However, studies indicate that there are certain risk factors that may increase your chance of developing breast cancer.[65] These are the following:

- Decade. Your risk of breast cancer increases if you are 55 years of age or older.
- Sex. Women have a far higher risk of acquiring breast cancer than do men.
- Studying families is part of genealogy. If you have close relatives who have previously been impacted by the illness, such as parents, siblings, children, or other family members, your chances of receiving a breast cancer diagnosis are higher. A single defective gene that is passed down from one generation to the next and may be found by genetic testing is thought to be the cause of five to ten percent of breast cancer cases.
- Smoking. There is evidence linking the use of tobacco products to an increased risk of breast cancer as well as other malignancies.
- Drinking alcohol According to a number of studies, drinking alcohol may make a woman more susceptible to developing several forms of breast cancer.
- Obesity. An increased risk of both breast cancer development and recurrence has been associated with obesity.
- Exposure to radiation. If you have ever had radiation therapy, especially to the head, neck, or chest, your risk of developing breast cancer increases.
- Hormone replacement therapy, or HRT for short, is a popular treatment. Research suggests that those undergoing hormone replacement treatment, or HRT, are more vulnerable to breast cancer.

There exist numerous more factors that could potentially increase an individual's risk of developing breast cancer. Speak with your healthcare provider to determine whether you are in any risk.[66–68]

1.7.5. How is breast cancer diagnosed?

In addition to checking your breasts, the medical professional will ask you about any current symptoms you may be having as well as your family and medical histories. Furthermore, the medical professional you meet might suggest getting a breast exam to check for any abnormalities.[69] These testing could involve the following:

- A mammography. If you have any abnormal growths or alterations in your breast, these particular X-ray scans may show them. A component of breast cancer prevention care is routine mammography.

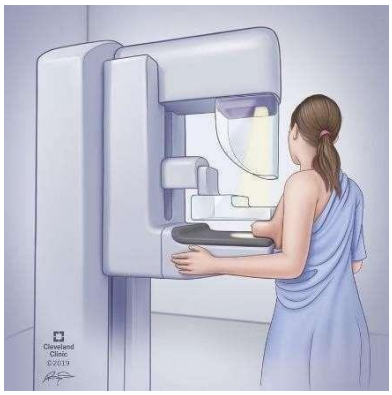


Fig 05 : Mammogram **[Courtesy; google]**

- Ultrasonography. Using sound waves, this test captures images of the tissues inside your breast. It is employed to support the diagnosis of anomalies or breast lumps.
- Scanning using positron emission tomography (PET): Specialized dyes are used during a PET scan to indicate areas that may be harmful. Your medical practitioner will use a scanner to take photographs of you after injecting a specific dye into your veins for this examination.
- This diagnostic process, sometimes referred to as magnetic resonance imaging, or MRI, uses radio waves and magnets to create clear, detailed images of the structures inside your breast.

Your healthcare provider might take a biopsy of the patient's breast tissue if they find anything suspicious from the imaging tests. The sample will be taken to a pathology lab so that it can be examined. [70]

1.7.6. What is the breast cancer stages?

How far the cancer has progressed throughout the body can be inferred from the stage of the disease. Numerous factors, including the tumor's location and size as well as whether the cancer has spread to other bodily areas, affect the prognosis. The following are the primary stages of breast cancer:

Stage 0. There is no regional distribution of the sickness. This suggests that it hasn't come out of your breast's milk ducts yet.

Stage I. At this point, the cancer cells have spread to the nearby breast tissue.

Stage II. The tumour has either reduced to less than 2 centimetres in diameter and has done so, or it has grown to be more than 5 centimetres in diameter and has not spread to the lymph nodes beneath the arm. At this stage, the tumours may be 2 to 5 cm wide and may or may not have spread to the surrounding lymph nodes.

Stage III. The cancer has already spread from its original location as of right now. It's possible that cancer has spread to nearby tissue and lymph nodes, but it hasn't yet reached distant organs. Stage III is frequently used to describe breast cancer that has advanced to a localized stage.

Stage IV. You no longer only have cancer in your breast; it has also gone to your liver, lungs, brain, and bones. Breast cancer that has spread to other bodily parts is referred to as stage IV breast cancer. [71–72]

1.7.7. Breast cancer subtypes

There are numerous subtypes of breast cancer, including:

Infiltrating (invasive) ductal carcinoma. This type of breast cancer swiftly spreads to nearby breast tissue after starting in the milk ducts. This type of breast cancer is the most common, making up about 80% of cases.

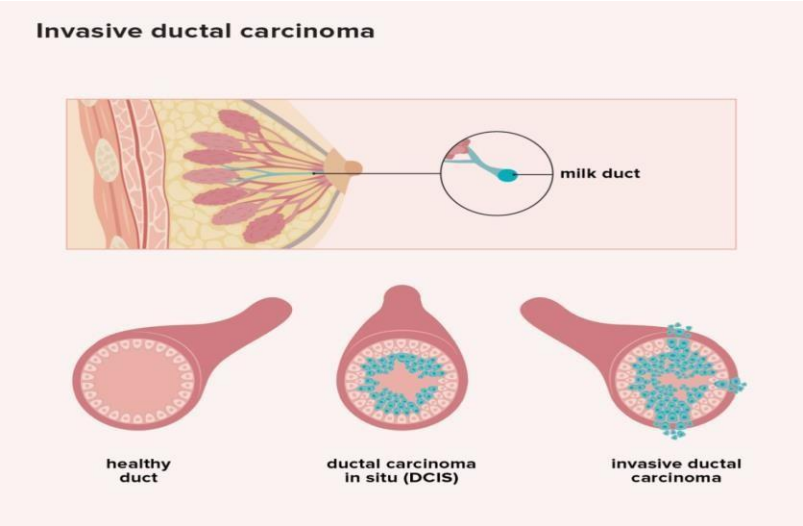


Fig 06: Invasive ductal carcinoma [Courtesy; google]

In situ ductal carcinoma. Some medical professionals classify ductal carcinoma in situ as precancerous rather than cancerous since it does not show signs of metastasis, or the spread of cancer cells outside of the milk ducts. This illness has a simple remedy. If therapy is started as soon as possible, the cancer may be prevented from progressing and becoming more aggressive.

Infiltrating (invasive) lobular carcinoma. There's cancer in your breast lobules (where milk is made) and it's spread to nearby tissue. This factor may be responsible for 10%–15% of cases of breast cancer.

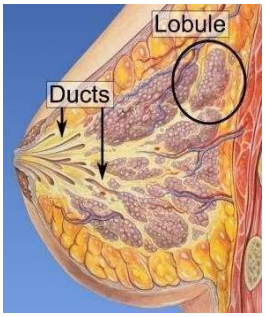


Fig 07: Infiltrating (invasive) lobular carcinoma [Courtesy; google]

Lobular carcinoma in situ. Lobular carcinoma in situ is most likely the diagnosis if the breast lobules contain aberrant cells. Even though it isn't officially cancer, this marker has been shown to indicate an increased chance of developing breast cancer in the future.For women with lobular carcinoma in situ, routine clinical breast exams and mammograms are crucial.

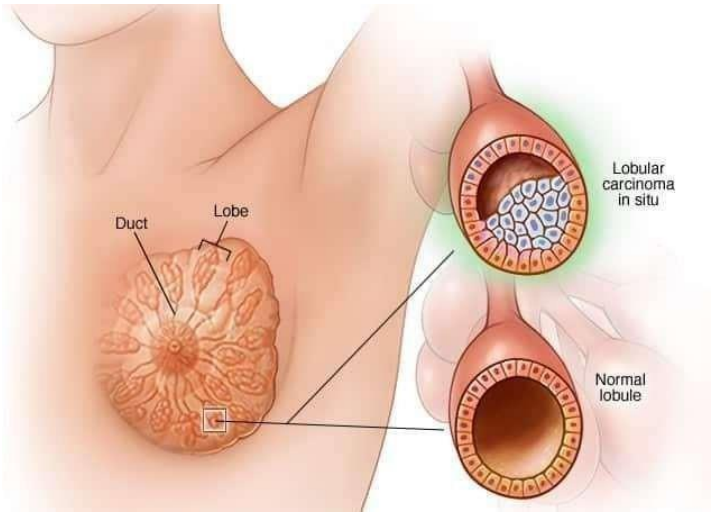


Fig 08: Lobular carcinoma in situ [Courtesy; google]

Triple negative breast cancer (TNBC). Triple negative About 15% of cases are breast cancer, which is extremely difficult to cure. Triple negative breast cancer is defined as having no HER2, PR, or ER. This being the case, therapy and diagnosis become more difficult.

Inflammatory breast cancer. Because it behaves like an infection, this type of cancer is uncommon and extremely hazardous. Some of the skin changes associated with inflammatory breast cancer are pitting, dimpling, edema, and redness. It is caused by cancer cells obstructing the skin's lymph veins.

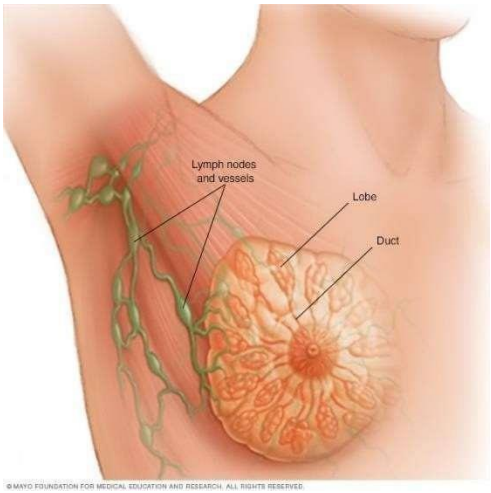


Fig 09: Inflammatory breast cancer [Courtesy; google]

1.7.8. Prevention

Breast illness caused by Paget's. Breasts autoimmune condition is referred to as Paget's disease. This type of cancer is especially dangerous for the ovaries and the skin surrounding the nipple. [73-75]

Lifestyle

A healthy body weight, quitting drinking, breastfeeding, increasing physical activity, and avoiding smoking are all evidence-based strategies that help reduce a woman's risk of breast cancer.[76] If these adjustments were made, it's possible that up to It may be possible to prevent 38% of cases of breast cancer in the US, 42% in the UK, 28% in Brazil, and 20% in China. Like women of all ages, postmenopausal women may benefit from moderate exercise, such as brisk walking. [77] Regularly participating in intense physical activity can reduce an individual's risk of breast cancer by around 14%. [78] There is "strong evidence that higher levels of physical activity and less sedentary time are likely to lower breast cancer risk, with findings broadly similar across breast cancer subtypes," based on an analysis of data from 130,957 women with European heritage. This shows that encouraging people to move more and lessen their sedentary behaviour may have additional advantages, such as a decreased risk of diabetes and cardiovascular disease. [79] The American Society of Clinical Oncology and the American Cancer Society in 2016 published recommendations for cancer prevention involving vegetables, fruits, whole grains, and legumes.[80] Consuming a lot of citrus fruits may lower your risk of breast cancer by 10%. [81] Consuming omega-3 polyunsaturated fatty acids from marine sources appears to reduce the risk. [82]Eating a lot of soy products may have preventive effects. [83]

Pre-emptive surgery

BRCA1 and BRCA2 mutation carriers have an incredibly high risk of breast cancer, so it might be wise to remove both breasts before any cancerous growths or suspicious lumps or lesions are discovered (a procedure known as "prophylactic bilateral mastectomy" or "risk reducing mastectomy").[84, 85] Due to the lack of data supporting its use in any other demographic, this method should only be applied to women who are considered high-risk. Reference [86] In addition to receiving genetic counselling, those with a family history of high risk should get tested for BRCA. Doing something on a daily basis is not recommended. Because there are so many different ways that BRCA genes can change,

from the clearly deadly frameshift mutations to the comparatively harmless polymorphisms.The majority of genetic changes with discernible effects are yet unknown. A person with a moderate risk profile is more likely to provide these ambiguous, useless test results. Although it may reduce the probability of developing second breast cancer, it is unknown if removing the second breast from a patient with breast cancer improves their chances of survival (contralateral risk-reducing mastectomy, or CRRM). [87]

Medications

While some ER-modulators lower the risk of breast cancer, they also raise the risk of endometrial cancer and thrombosis. The total number of deaths is staying the same. [88–89] Although women over 35 who are at high risk should have access to them, they are not advised for those with an average risk of breast cancer. [90] These drugs continue to be helpful for at least five years after therapy ends in preventing breast cancer. [91] Aromatase inhibitors, including exemestane and anastrozole, are not associated with an increased risk of endometrial cancer or thromboembolism, and they may be more effective in reducing the risk of breast cancer than selective estrogen receptor modulators, like tamoxifen. [92]

Fig 10: Anastrozole **[Courtesy; google]**

1.7.9. Treatment

The patient's age and the disease's stage are the two most crucial factors that influence how breast cancer is treated. Treatments become more intensive when the stage of the disease has advanced further or when there is a greater risk of the cancer returning after therapy is finished. Following surgery, women with breast cancer may get radiation therapy, chemotherapy, or a mix of these medical interventions. The best course of action is to tackle the problem from several disciplinary angles.Hormone-blocking medications are frequently used in conjunction with long-term therapy to treat cancers with positive hormone receptors. Monoclonal antibodies or other immune-modulating treatments may be used to treat certain cases of metastatic breast cancer as well as other advanced stages of the illness. Even so, there is now study being done on this type of therapy. [93]

Surgery

During a surgical surgery, the tumour is surgically removed, along with maybe some surrounding tissue. During the procedure, a biopsy of one or more lymph nodes may be carried out. A sentinel lymph node biopsy is often used to obtain lymph node samples, albeit this isn't always the case. Typical surgical techniques include:

- ✓ A mastectomy is the removal of the entire breast.
- ✓ The quadrantectomy, which involves removing one-fourth of the breast.
- ✓ A lumpectomy is the medical term for the surgical excision of a portion of the breast.

After the tumour is removed, the affected individual may decide to undergo breast reconstruction surgery, which is a subspecialty of plastic surgery, to enhance the treated area's visual appeal. Women may choose to have a flat chest or wear breast prosthesis to give the appearance that they have breasts underneath garments. After a mastectomy, the patient is allowed to utilise the breast prosthesis whenever they see fit.[Pages 94–95]

Medication

The term "adjuvant therapy" describes the use of drugs both prior to and following surgery. The word "neoadjuvant treatment" describes any kind of therapy, including chemotherapy,that is given before surgery. Aspirin may reduce the number of people who die from breast cancer when used in conjunction with other treatments. Currently, hormone-blocking medications, chemotherapy, and monoclonal antibodies are the three main types of medications utilized as adjuvant treatments for breast cancer. [96–97]

Hormone replacement treatment

Certain types of breast cancer cannot progress further in the absence of oestrogen. Because they carry progesterone (PR+) and oestrogen (ER+) receptors on the exterior of their cells, these cells vary from other types of breast cancer cells. Together, these are sometimes referred to as hormone receptors. You can treat these ER+ tumours with drugs that either disable the receptors, like tamoxifen, or stop the production of oestrogen, like anastrozole or letrozole. For example, tamoxifen is a drug that stops the receptors. Ten years is the recommended amount of time to take tamoxifen. When women take tamoxifen, they are more likely to have uterine cancer, endometrial polyps, and hyperplasia after menopause. If you take tamoxifen through an intrauterine method that releases levonorgestrel, you may have more vaginal bleeding following one to two years. However, it may lower your chance of polyps in the endometrium and hyperplasia, nevertheless it doesn't always do that. [98] Five years is the recommended amount of time to take letrozole.In spite of the fact that inhibitors of aromatase are only good for women who are currently going through menopause, they seem to work better in this group than tamoxifen. Because the active form of aromatase within postmenopausal women is different from the primary kind of enzyme in premenopausal women, these medicines do not work to stop the main aromatase in premenopausal women. This is because aromatase activity has changed in women who have gone through menopause. [99] Giving an aromatase inhibitor to premenopausal women whose ovaries are still fully functional is not a good idea (unless they are also getting medicine to stop their ovaries about working). It is possible to use aromatase inhibitors as well or endocrine medicine along with CDK inhibitors. [100]

Chemotherapy

Chemotherapy has been demonstrated to be very beneficial in cases of estrogen receptor-negative (ER-) disease and is typically given to individuals whose breast cancer has advanced to stages 2-4. Patients are frequently prescribed combinations of chemotherapeutic medications for three to six months of treatment. Combining doxorubicin and cyclophosphamide forms part of one of the most widely used therapy regimens, known as "AC." When a taxane medication such as docetaxel is included, as in some circumstances, the treatment plan is known as "CAT." Three more drugs that are frequently used in therapy (also known as "CMF") include fluorouracil, methotrexate, and cyclophosphamide. [101] Most chemotherapy medications work by destroying rapidly dividing cancer cells, either by causing damage to DNA during replication or by some other mechanism, in order to achieve their stated goal of treating cancer. However, the medications may damage healthy cells that are proliferating quickly, which could have serious negative effects. The most significant of doxorubicin's possible side effects, for example, is that it may harm the heart muscle.[102]

Monoclonal antibodies

Trastuzumab is the name of a monoclonal antibody that targets HER2. It has increased the five-year disease-free survival rate for HER2-positive breast tumours from 1-3 to almost 87% (total survival rate: 95%). Overexpression of the HER2 gene or its protein product is linked to a higher risk of disease recurrence and a worse prognosis in 25–30% of cases of breast cancer. Overexpression of HER2 in breast cancer is associated with an increased risk of disease recurrence. Nevertheless, trastuzumab comes with a high risk of serious side effects and is costly (about 2% of individuals who use it get significant heart damage).Treatment with the antibody pertuzumab, which inhibits HER2 dimerization and synergizes with trastuzumab, is advised for patients
who are very sick. [103–104]

Fig 11: Trastuzumab **[Courtesy; google]**

Radiation

To Radiation therapy (RT) is still an important part of more complicated breast cancer treatment. New therapeutic trends depend on both the patient's risk level and the type of RT method they choose, as well as their input. The results that have come out in the three years since the third Breast Cancer Consensus Conferences have not fundamentally changed how radiation therapy is used in clinical settings. However, the guidelines for radiation therapy need to be changed and updated to reflect new scientific data. RT after breast enlargement (BCS) is recommended for people with ductal cancer in situ (stage 0) because it cuts the chance of a local relapse . RT is still the normal treatment for early stage (stage I–II) invasive breast cancer after BCS. However, hormonal therapy lacking RT can be considered as an alternative treatment for older patients (>70 years) with grade I, hormone receptor-positive tumours (10–17). Hypofractionated entirety breast irradiation (WBI) is a proven option that works just as well as the standard 25 × 2 Gy WBI that lasts for five weeks (18–23). In some situations, RT of the whole breast is not needed after BCS.

Instead, RT of the cancer bed and nearby tissues, also known as accelerated partial breast radiation (APBI) can be used (24–36). After a mastectomy, RT greatly lowers the risk of LR and raises the chance of life for people with lymph nodes that test positive in the armpit (37–45). A randomized clinical study shows that patients with positive lymph nodes should have a radical mastectomy that includes hypo fractionated RT of the inner wall of the chest, armpit apex, as well as supraclavicular region (21). It is not clear that hypo fractionated therapy for parasternal lymph nodes is a good idea. The newest randomized studies show that regional RT greatly improves life without disease and without distant metastases, but its effects on overall survival are mixed (46–47). New studies on surgery show that complementary underarm dissection is not necessary in some cases where one to two sentinel lymph nodes are positive. But unless there are micro metastases (pN1mi), it is suggested that axillary lymph nodes or, based on the person's risk, lymph glands in other regional regions be irradiated (48–52). For all indications (DCIS, cancer of the breast that is invasive, and regional irradiation), a lot of work is being done to figure out how to predict the effect of RT using different molecular markers. The goal is to lower the level of treatment in low-risk cases that don't need RT.

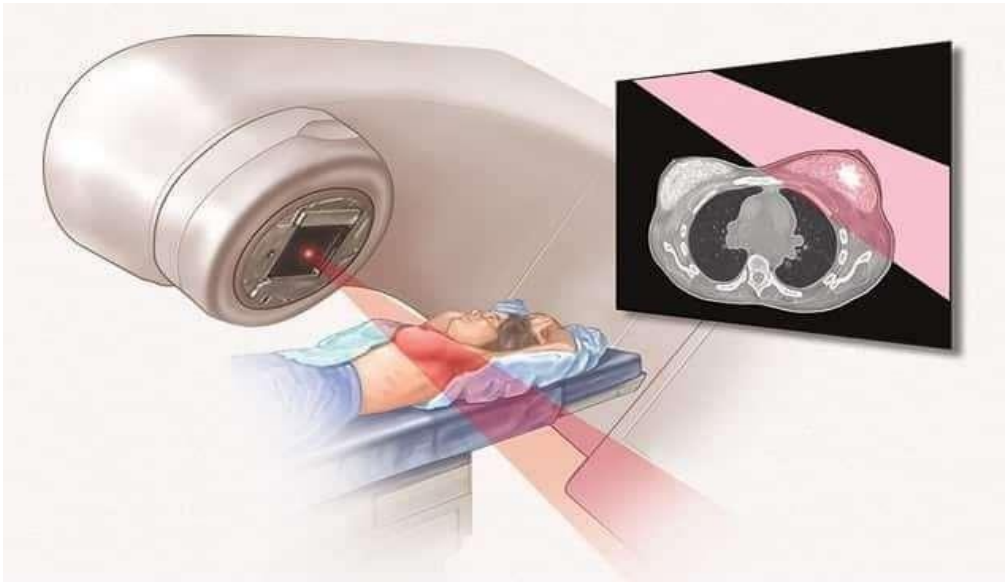


Fig 12: Radiotherapy **[Courtesy; google]**

1.8. Breast Cancer During Pregnancy

One kind of cancer that starts in the breast cells is called breast carcinoma. Men and women are both susceptible to the sickness, though women get it more often than men. Giving a woman with breast cancer a diagnosis while she is expectant can be very hard for both her unborn child and the medical staff. Breast cancer during pregnancy is very uncommon; only about one in every three thousand births is linked to it. That being said, it is important to know that carcinoma of the breast is a specific kind of cancer that most often affects women who are pregnant. It can be hard to identify and manage breast cancer in a pregnant woman because of concerns for both her safety and the well-being of the baby growing inside her. An obstetrician, an abdominal surgeon, a radiation cancer specialist, and a medical therapist are just a few of the experts who work together to treat breast cancer that happens during pregnancy. There are many ways to treat breast cancer that starts in a pregnant woman. Factors include the type of cancer, the baby's gestational age, and the mother's personal beliefs. Options that could be investigated include surgery removal, chemotherapy drug treatment, and radiotherapy treatment.To lower the risks to the developing child, these treatments will be carefully planned in terms of when they will be given and the order to which that they will be given. There are times when starting labor early or giving birth before the due date may be necessary so that therapy can begin as soon as possible. Their healthcare team will make this decision after thinking about the good and bad effects it might have on both the mother and the future child. Breastfeeding is usually not recommended during cancer treatment because the drugs used in chemotherapy and radiation therapy could be harmful to the baby. Still, if the treatment works, it's possible that nursing can continue. In general, when treating breast cancer during pregnancy, it's important to think carefully about the unique problems that come up in this situation. There are good outcomes that can happen for both the mother and the baby if the right planning and organization of care are done.[108-109]

Fig 13: Fetus **[Courtesy; google]**

1.8.1. Treatment

Breast cancer found while pregnant is a difficult medical disease that needs an integrated approach to treatment because it is so complicated and hard to deal with. The exact steps that are taken during treatment will depend on a lot of things, such as the condition of the illness, the gestational age of the fetus, and the general health of the mother. Here are some possible breast cancer treatments that could be given while the women is pregnant:

• Surgery is by far the most common way to treat breast cancer, and it is often the first step in treatment for women who are pregnant and have breast cancer. Surgery will depend on what kind of surgery can be done and where the tumor is. The doctor may suggest either a lump removal or a mastectomy.

Using drugs to kill cancerous cells throughout the body is what chemotherapy is all about. Getting

Another word for chemotherapy is medications. Chemotherapy can be administered either before or after surgery, depending on the patient's condition.

To get rid of cancer, radiation therapy includes exposing cells with cancer to high-energy radiation. It can be used to kill cancerous cells that remain still there after treatment.

• Hormone therapy: This is the best way to treat breast cancer if a test shows that it has a hormone receptor. The way it does this is by stopping the release of hormones that help cancer cells divide.

• Close observation of the foetus: During the treatment, it is very important to keep a close eye on the foetus. A non-stress test or a scan could be used for verification on the health of the foetus.

• Postponement of treatment In some cases, it might be best to wait to start therapy till after the baby is born. When making this decision, you should think about the baby's gestational age, the stage and type of cancer, and the cancer itself.

When a woman is pregnant and finds out she has breast cancer, it is very important to remember that her treatment plan should be based on her unique needs. The best care for both mom and baby should come from a group of medical workers with different specialties working together. This group should have a cancer specialist, a neonatologist, and a gynecologist.

Literature Review

Histological types of breast cancer: how special are they?

Breast cancer is a complex disease with different types that show up in different ways, react differently to treatment, and have different histological and biological traits. Microarray technologies have helped us understand the molecular basis of several breast cancer traits, such as the likelihood of metastasis and the grade of the tumour. These technologies have also helped us find gene expression patterns that can be used to predict and predict the outcome of a breast cancer diagnosis. A molecular classification of cancer of the breast based on transcriptomic evaluation has also been suggested. But microarray studies have mostly been about invasive ductal tumours of any kind. Because some types of cancer of the breast are not very common, knowledge about how they behave biologically and clinically based on their histologic type has never been considered. There are up to 25% of all aggressive breast cancers that are histologically different types. Recent studies have shown that there are direct links between genotypes and phenotypes. For example, secretory tumours of the breast always have the t(12;15) translocation, which creates the ETV6-NTRK3 fusion gene. Adenoid cystic carcinomas always have the t(6;9) MYB-NFIB translocation, and lobular carcinomas always stop the CDH1 gene from working through a number of different molecular pathways. Also, studying the histopathology and genetic makeup of tumours to conditional models of mice has directly shown that certain genes are responsible for the development of particular kinds of breast cancer based on their histology. We look at the links between the molecular classification of breast cancer and its different histological types. We also talk about where the different types of breast cancer might come from and suggest a way to find new therapeutic targets by studying these different types of breast cancer.

2.2 Awareness and current knowledge of breast cancer

Breast cancer is still a problem for public health around the world, and it is now the most common disease in the world. More people are aware of breast cancer, more people are paying attention, and improvements in breast images have all helped find and screen for breast cancer. Women are most likely to die from breast cancer, which is the top cause of death among women. Over the past twenty years, research on breast cancer has led to amazing progress in our knowledge of the disease, which has led to better treatments. Between all cancers, breast cancer is one of the most common ones in women who have gone through menopause, contributing to 23% of the deaths caused by cancer. It's a worldwide problem now, but women still get diagnosed with it too late because they don't check their own breasts or have a doctor do a clinical test. This review talks about the breast's structure, what causes breast cancer, how it spreads, the different stages of breast cancer, how to diagnose it, and different ways to treat it, such as surgery, chemotherapy, specific treatments, hormone replacement, radiation treatment, complementary therapies, gene therapy, stem cell therapy, and more.

Breast cancer in adolescents and young adults: a review with a focus on biology

Teenage and young adults (AYA) cancers, which are cancers found in people among their ages for 15 and 39, mainly include breast cancer. Breast cancer is found in 6.6% of women in the US who are under 40 years old. When AYAs get breast cancer, it usually has a worse outcome and a more aggressive phenotype. There are more high-grade and late-stage tumours, less oestrogen receptor positivity, and higher expression of HER2 in some studies. Large-scale genomic research have looked into how the genetic makeup of AYA cancers of the breast changes with age, but the results have been mixed. Some studies say that AYA carcinoma of the breast has its own biology, while others say that its aggressiveness is caused by the fact that younger people are more likely to have aggressive subtypes of breast cancer. Earlier this year, stromal-related gene signatures were found to be useful for predicting outcomes in AYA breast cancer. This suggests that changes in the microenvironment may be responsible for how breast cancer acts differently in different age groups. When choosing cytotoxic and targeted agents, the general rules are the same for AYAs and other people with breast cancer. However, the choices for endocrine treatment in the adjuvant and invasive settings depend on whether the woman is pre- or postmenopausal. The importance of ovarian suppression is still debated, and it is looked at again. The AYA community is a special one, and they need individualized care that takes into account things like genetic risk for breast cancer, future

fertility, and how treatment will affect their quality of life now and in the future. This requires organized care from a number of different fields. This article talks about how common breast cancer is among young women, its genetics, how it is treated, and some important medical problems that are specific to this group.

2.4 Breast cancer statistics, 2011

The American Cancer Society's article gives an overview of breast cancer data for women in the US, including changes over time in incidence, death, survival, and screening. In 2011, there will be about 230,480 additional instances of aggressive breast cancer as well as 39,520 deaths from breast cancer in women in the US. From 2004 to 2008, the rates of breast cancer in all race and ethnic groups stayed the same. Since the early 1990s, the death rate from breast cancer has been going down for all women with the exception American Indians and Alaska Natives. For these groups, the rate has stayed the same. There are clear differences in the death rates from breast cancer based on race or ethnicity, state, and socioeconomic position. Over the past 10 years, death rates have gone down significantly in 36 states as well as the District of Columbia. However, rates have stayed the same in 14 states. By looking at poverty rates by county, we saw that the drop in death rates started later and happened more slowly for women who lived in poor places. This caused the highest death rates from breast cancer to move from wealthy areas to poor neighborhoods during the early 1990s. Even though there has been a lot of improvement in getting more women to use mammography, screening rates are still lower for poor women than for other women. In 2008, only 72.8% of not poor women had a mammogram for screening in the past two years, while 51.4% of not enough earning women enjoyed one. The single most significant thing that doctors can do to lower the number of people who get and die from breast cancer is to encourage people aged 40 and up to get a mammogram and an in-person breast check every year. Also, doctors should make sure that people who are very likely to get breast cancer are found and given the right tests and follow-up care. To keep making success in controlling breast cancer, we will need to keep and increase our efforts to make sure that everyone gets high-quality examinations, diagnoses, and treatment.

Purpose of the study

This study was done in person with the following goals because the number of people with breast cancer is growing quickly right now.

- To ascertain the age at which women are most likely to develop breast cancer.
- The ability to identify breast cancer.
- To determine the survival rate of individuals with breast cancer.
- Find out how having breast cancer changes women's social lives.
- To find out how many women are worried about getting breast cancer.
- To find out when women with signs of breast cancer go to the doctor.

Methodology

4.1. Introduction:

The form starts with an overview and then has twenty-two inquiries that are all about the same thing. Four hundred and fifty people took part in this study. This research was conducted at the National Institute for Cancer Research and Hospital.

4.2. Research Design:

This survey was designed to learn people's opinions regarding breast cancer and how it impacts their life. The National Institute of Cancer Research and Hospital conducted the survey. Since the study was cross-sectional, it was limited to examining participants' physical reactions. Using Microsoft Word, the questions were created.

4.3. Method of Data Analysis:

Following the collection of a large amount of data, the data was examined for accuracy and consistency to ensure that no data was missing or inconsistent. They were disposed of if any existed. For information investigation, Microsoft's most recent version was utilised.

4.4. Ethical Considerations

Before starting to gather information, the people involved in the investigation gave their formal permission. The interviewees' identities were kept secret, and the people who were part of the study were told that they could quit at any time.

4.5. Survey Questionaries'

1. 1. Name of Patient ……..

2. Gender of the Patient

- Male
- Female

3. Marital Status of the Patient

- Yes
- No

4. Occupation of the Patient

- Student
- Job Holder
- Business
- Others

5. Education Level of the Patient

- Student
- Graduate

6. Age of the Patient

- 0-20 years
- More than 20 years
- More than 40 years

7. Residence

- Rural
- Urban

8. 8. What do you understand regarding cancer??

- Yes
- No

9. 9. Have you heard of breast cancer?

- Yes
- No

10. Are you suffering from Breast Cancer?

- Yes
- No

11. Do you feel any tumors in your Breast?

- Yes
- No

12. What is the duration of your Cancer?

- Less than 1 year
- More than 1 year
- Suffering for long time

13. 13. Do you believe that wearing bras or knickers for an extended period of time can lead to breast cancer?

- Yes
- No

14. Do you think the size of your breasts can affect your risk of getting breast cancer?

- Yes
- No

15. 15. Do you understand how to tell if you have breast cancer on your own?

- Yes
- No

16. What type of treatment are you following for your cancer?

- Surgery
- Chemotherapy
- Radiation therapy
- Any other treatment

17. Have you seen your doctor about your breast cancer?

- Yes
- No

18. Are you taking any medicine for your Breast Cancer?

- Yes
- No

19. Do you have any bad affects from the medicine you're taking?

- Yes
- No

20. Does anyone in your family have breast cancer?

- Yes
- No

21. 21. Do you think having breast cancer changes the way you live?

- Yes
- No

22. Are you following drug-based treatment for breast cancer?

- Yes
- No

Result & Discussion

5.1. Knowledge about Breast Cancer

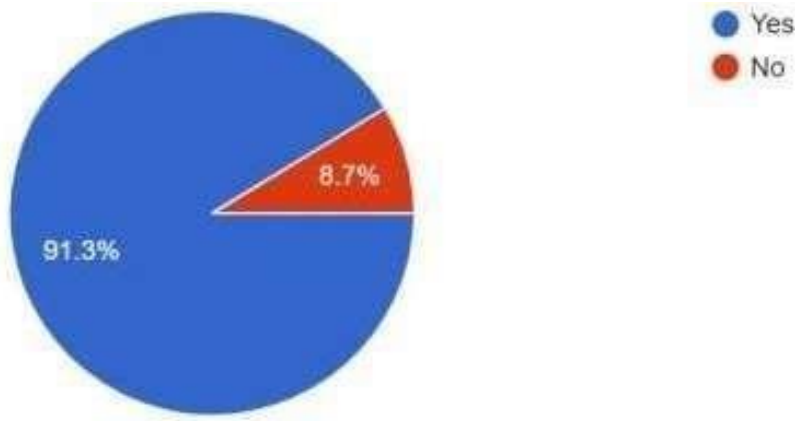


Fig 14: The percentages of breast cancer known

A poll revealed that 91.3% of respondents knew regarding breast cancer prior to the time they were told they had it. 8.7% of the population has no idea what breast cancer is.

5.2. Residence

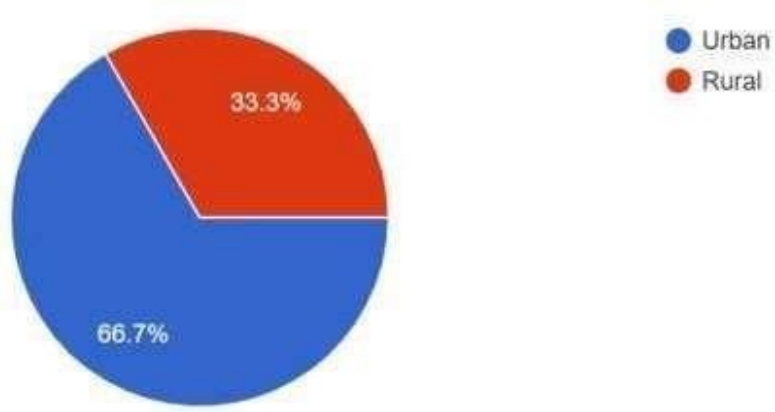


Fig 15: Residence

The poll found that 66.7% of people who live in cities have Breast Cancer. Women who live in rural places are 33.3% more likely to have breast cancer. People who live in cities are more likely to get breast cancer.

5.3. Symptoms of Breast Cancer

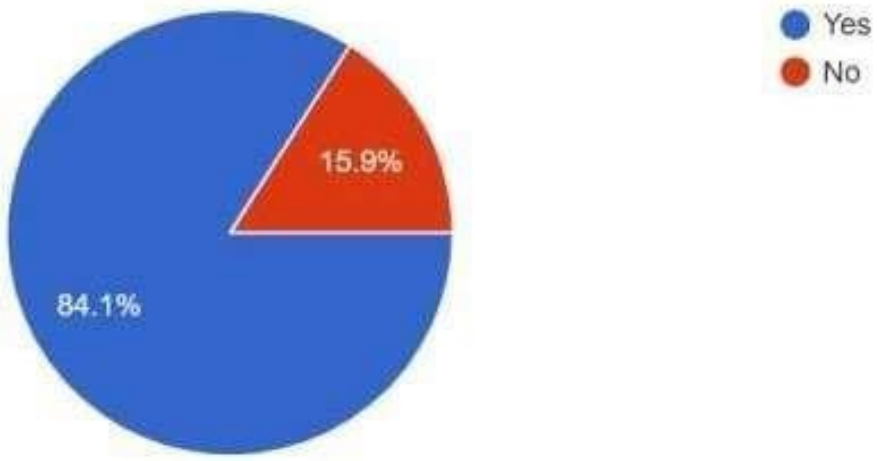


Fig 16: Symptoms of Breast Cancer

This study found that 84.1 percent of people have been diagnosed with Breast Cancer. 15.9% of people do not have any signs or symptoms of breast cancer.

5.4. Duration of Breast Cancer

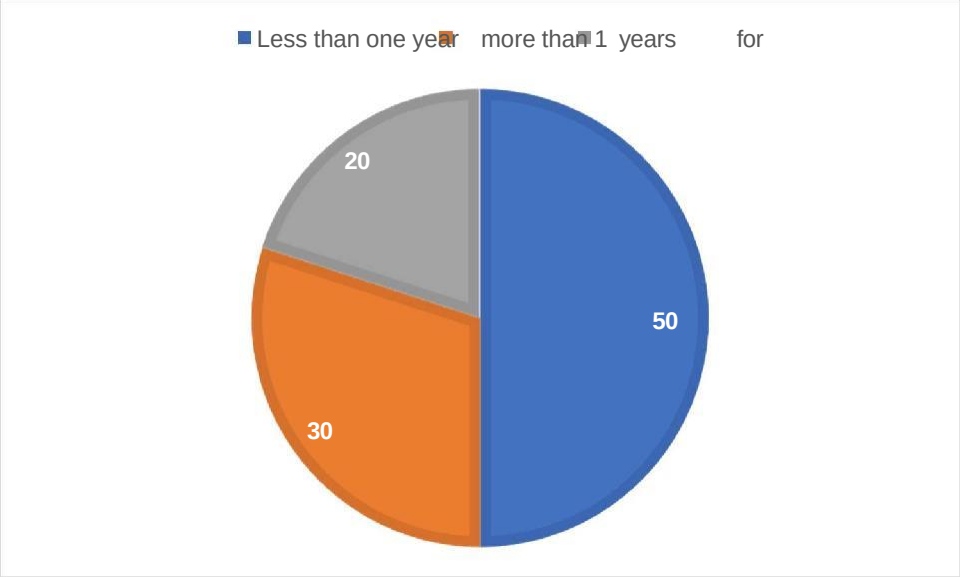


Fig 17: Duration of Breast Cancer

According to this poll, 50% of people with breast cancer are younger than one year. 30% of people with breast cancer are between the ages of 1 and 3. 20% of the people are over 3 years old.

5.5. Self-Diagnosis awareness among patient

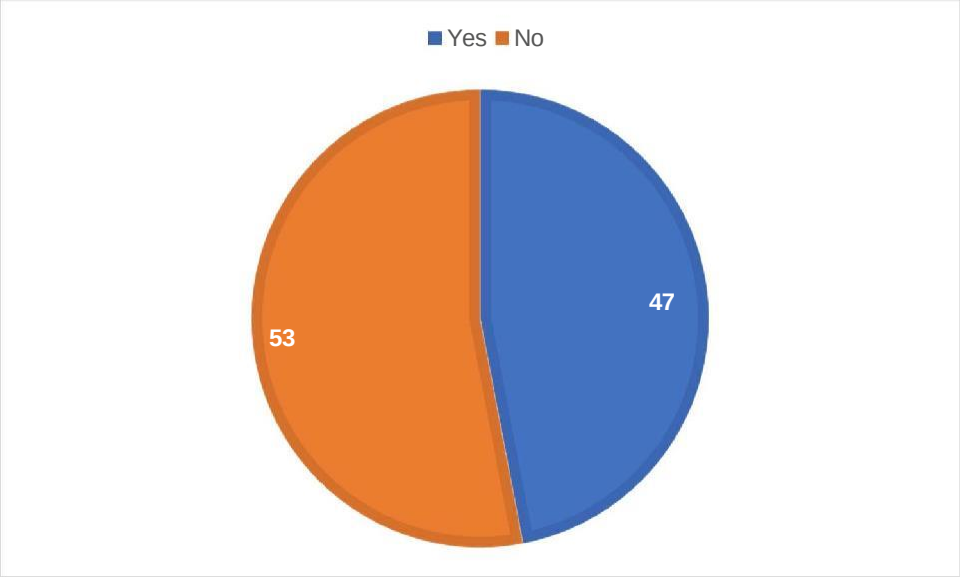


Fig 18: Self-Diagnosis awareness among patient

47% of respondents to this survey said they could independently diagnose breast cancer. 53% of individuals are unaware of this.

5.6. Medication used for treatment

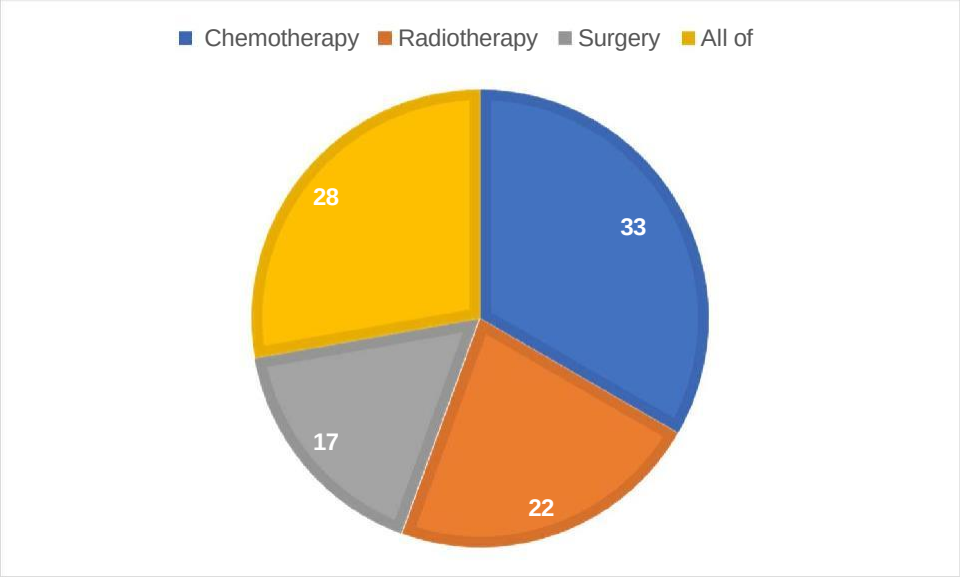


Fig 19: Medication used for treatment

According to this poll, 22% of persons receive radiation treatment. Chemotherapy has medical applications by 33% of people. 17% of people are getting breast surgery. 28% of people are taking all of this.

5.7. Drugs to be treated with

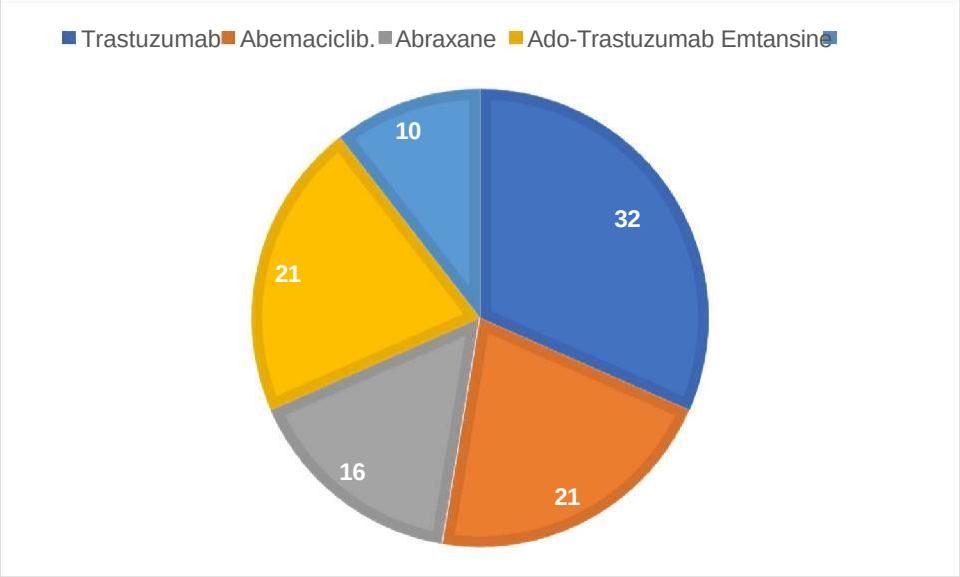


Fig 20: Drugs to be treated with

In this poll, 32% of people say they consume trastuzumab as their medicine. Abemaciclib is used by 21% of people. Some 16% of people take abrzxane. 10% of people use drugs.

5.8. Family History of Previous Cancer diseases

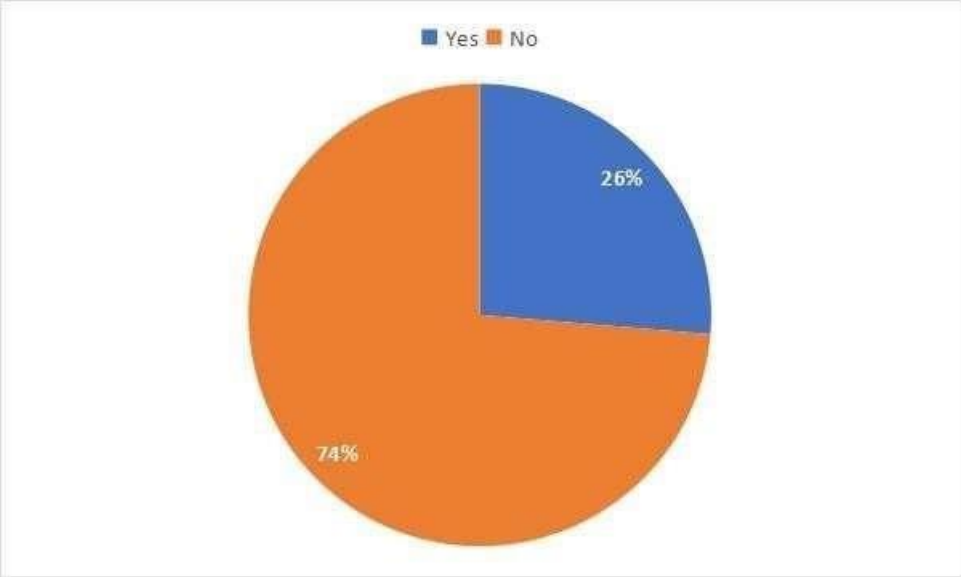


Fig 21: Family History of Previous Cancer diseases

About 26% of those who answered this poll knew someone who had breast cancer, while 74% did not know anyone who had breast cancer.

5.9. Social Impact of Breast Cancer patients life style

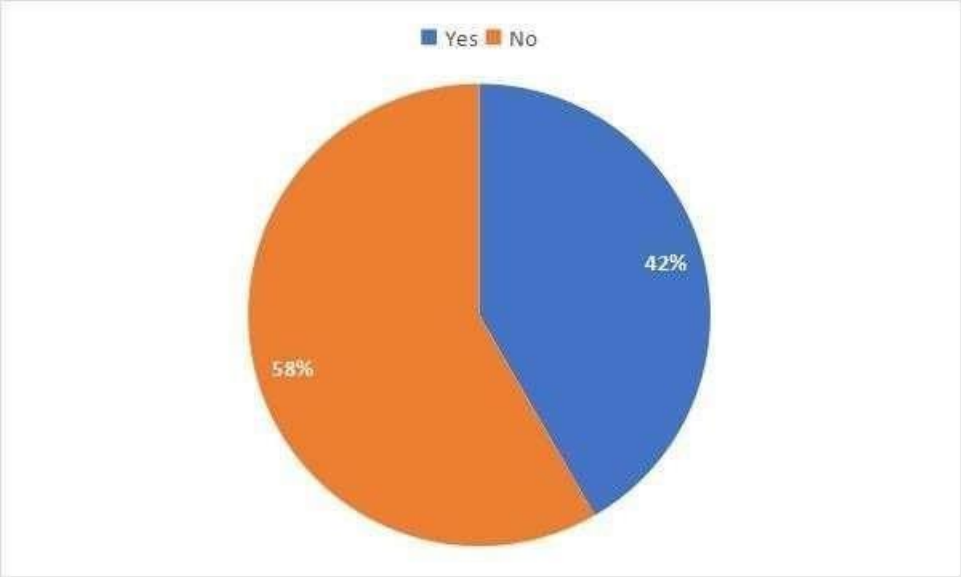


Fig 22: Social Impact of Breast Cancer patients life style

This poll found that 42% of people who answered claimed breast cancer has an effect on society, while 58% said they didn't know.

5.10. Doctor follow up regarding treatment

Fig 23: Doctor follow up regarding treatment

The survey found that 95% of people regularly see their doctor to feed breast cancer and only 5% were not linked to that.

5.11. Drug based management of breast cancer

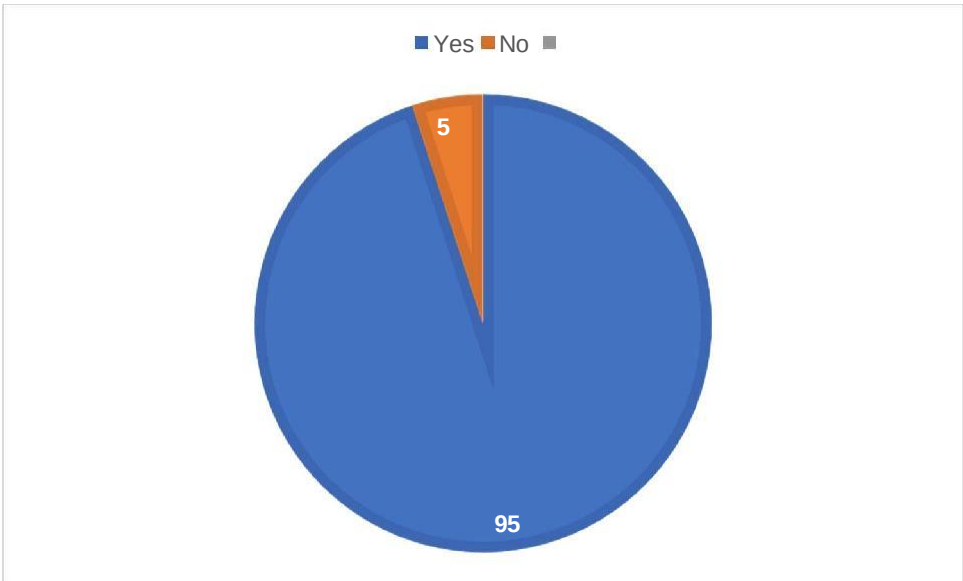


Fig 24: Drug based management of breast cancer

This study found that about 95% of people who have breast cancer treat it with drugs. These drugs include chemotherapy, oral medications, and intravenous medications. The other 5% didn't know about this.

Conclusion

Conclusion

Our goal was to gather and update what we know about breast cancer right now, focusing on its present prevalence, risk factors, categorization, prognostic indicators, and treatment options. Since the rates of both getting breast cancer and dying from it have gone up a lot in the last few decades, we need to find the best way to avoid it right away, keeping in mind that risk factors that can be changed could be very important in lowering the number of cases. So far, mammograms and ultrasound are the most popular screening tests that can find breast cancer pretty early. The never-ending search for biomarkers that can predict how a person will do with their cancer and targets for possible biological treatments has made a big difference in how breast cancer patients are treated and how well they do. Breast cancer while pregnant is not common, but because of the pregnancy, it can be hard to find and treat. It's possible for symptoms to be hidden or for a diagnosis to be delayed. Radiation therapy, chemotherapy, surgery, or a mix of these therapies may be used for treatment. an obstetric, Multidisciplinary care may involve a medical oncologist, surgeon, radiation oncologist, and neonatologist. Breastfeeding the infant might not be feasible or healthful. Speak with a physician who treats expectant patients with breast cancer if you are anxious or concerned about breast cancer throughout your pregnancy. If given the proper care, pregnant women with breast cancer can save the lives of both themselves and their unborn child by receiving excellent therapy.

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