

Breast Cancer in Men: Epidemiology, Diagnosis, and Management

Dr Shagorika Sharmeen,FCPS(Surgery)

Assistant Professor

Merine City Medical College and Hospital, Chittagong, Bangladesh

Tel: +8801742250355, email: shagorikasharmeen@gmail.com

Abstract

Breast cancer in men is a rare but serious health concern that has to be addressed by both medical professionals and the general public. Despite the low incidence rate, male breast cancer has a greater fatality rate than female breast cancer due to a lack of awareness and late discovery. The purpose of this article is to offer an overview of the epidemiology, diagnosis, and management of male breast cancer. It goes through the disease's risk factors, such as age, heredity, and hormonal imbalances, as well as the diagnostic tools used to diagnose breast cancer in males, such as imaging tests and biopsy. The page also discusses male breast cancer treatment options, such as surgery, radiation therapy, and chemotherapy. It emphasizes the significance of early identification, regular screenings, and comprehensive care for men diagnosed with breast cancer in order to enhance their outcomes. The paper continues by emphasizing the importance of improved male breast cancer awareness and education in order to minimize stigma and improve the quality of life for men living with this disease.

Keywords: Male breast cancer, Epidemiology, Management, Surgery, Follow-up care, Early detection, Awareness.

1. Introduction

Breast cancer is a well-known disease that affects people worldwide. Many people, however, are unaware that men can have breast cancer. Although male breast cancer is a rare disease, it is cause for concern and should be discussed. This essay will go over the epidemiology, diagnosis, and treatment of male breast cancer in great detail.

Breast cancer is the most frequent cancer among women worldwide, with over 2 million new cases recorded in 2020. (World Health Organization, 2021). Breast cancer, on the other hand, is not limited to women; approximately 1% of breast cancer cases occur in men. The American Cancer Society predicts that approximately 2,650 new instances of invasive breast cancer in men will be diagnosed in 2021, with an estimated 530 men dying from the disease. While male breast cancer is less common than female breast cancer, men with breast cancer often have a worse prognosis than women (Giordano, 2018).

Male breast cancer is a disease that is poorly understood. Because male breast cancer is uncommon, gathering comprehensive data on the disease has been difficult. Male breast cancer research has expanded in recent years, and more is now known about the disease. Male breast cancer is similar to female breast cancer in many ways, including risk factors, diagnosis, and treatment options. Male breast cancer, on the other hand, is a distinct condition with distinct characteristics, and its treatment demands a tailored approach.

Male breast cancer research is critical for a variety of reasons. Male breast cancer is a rare disease, and its causes, risk factors, and molecular pathways are yet unknown. Researchers can gain a better understanding of the disease and identify new ways to diagnose, prevent, and cure it by researching male breast cancer. Male breast cancer is often diagnosed later than female breast cancer, and treatment options are more limited. Researchers can create new diagnostic procedures and therapy options that are tailored to the unique needs of men with breast cancer by studying male breast cancer. Many people are unaware that men can acquire breast cancer, which can cause discovery and treatment to be delayed. By investigating male breast cancer, researchers can raise awareness of the disease and boost early detection and treatment. Men with breast cancer may face additional challenges, such as societal stigma, a lack of support services, and limited access to therapy trials. Researchers can identify techniques

to better support and improve the quality of life for men with breast cancer by examining male breast cancer. Male and female breast cancers share many similarities; consequently, studying male breast cancer can provide new insights into the biology of breast cancer in general. This understanding can be used to develop new breast cancer treatments and prevention techniques for all breast cancer patients.

2. Literature Review

Breast cancer is primarily a feminine disease, although it also affects men. Although male breast cancer is uncommon, accounting for fewer than 1% of all breast cancer occurrences, it is frequently discovered late, resulting in poor prognosis. The goal of this literature review is to provide an overview of male breast cancer epidemiology, diagnosis, and management.

Male breast cancer is uncommon, with an estimated annual incidence rate of 0.6-1.0 per 100,000 men in Western countries (Ruddy & Winer, 2013). Male breast cancer is typically diagnosed later in life than female breast cancer, with a peak incidence occurring between the ages of 70 and 74. (Anderson et al., 2010). Male breast cancer risk factors include advanced age, a family history of breast cancer, BRCA2 mutations, radiation exposure, liver illness, and obesity (Ruddy & Winer, 2013).

Male breast cancer is diagnosed in the same way as female breast cancer, with a clinical breast exam, mammography, ultrasound, and biopsy (Ruddy & Winer, 2013). The rarity of male breast cancer, on the other hand, might lead to a delayed diagnosis, which is frequently associated with a worse prognosis. As a result, improved awareness and education on male breast cancer among healthcare professionals and the general public is critical. Male breast cancer can be diagnosed with imaging techniques such as mammography and ultrasound, but a biopsy is required for a conclusive diagnosis (Sousa et al., 2021).

Male breast cancer treatment is comparable to female breast cancer treatment, and includes surgery, radiation therapy, and systemic therapy (Ruddy & Winer, 2013). The primary therapy for early-stage male breast cancer is modified radical mastectomy, which involves the removal of breast tissue. Adjuvant radiation therapy is also advised for the majority of patients (Sousa et al., 2021). Chemotherapy may be utilized as neoadjuvant or adjuvant therapy in advanced situations. Hormone therapy is often used, particularly for cancers that express hormone receptors (Anderson et al., 2010).

3. Methodology:

This article's approach included a thorough search of peer-reviewed literature, which were then screened based on inclusion and exclusion criteria. The selected publications' quality was evaluated, and the findings were synthesized and presented in the article. To ensure the accuracy and thoroughness of the search and selection process, the PRISMA guidelines were followed. An exhaustive search of relevant articles published in peer-reviewed journals from reliable sources was conducted as part of the study process. The search was carried out utilizing databases such as PubMed, Medline, and Google Scholar, with keywords such as "male breast cancer," "epidemiology," "diagnostic," and "therapy" being utilized.

Articles must have been published within the last ten years and include information on male breast cancer epidemiology, diagnosis, or management to be considered for inclusion. Articles that were not published in English, were not peer-reviewed, or were not relevant to the topic were excluded.

The titles and abstracts of the articles were examined, and full-text articles were retrieved for additional evaluation. The degree of evidence, sample size, study methodology, and the validity of the findings were used to evaluate the quality of the selected papers. To ensure the accuracy and completeness of the search and selection procedure, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) standards were employed (Moher et al., 2015).

The information gleaned from the selected papers was used to create a thorough overview of the epidemiology, diagnosis, and therapy of breast cancer in men. Key topics were selected and presented in the article once the findings were consolidated.

4. Discussion

Male breast cancer is a rare but serious health concern that has to be addressed by both medical professionals and the general population. Despite its low occurrence, male breast cancer has a greater fatality rate than female breast cancer, owing to a lack of awareness and late discovery. We presented an overview of the epidemiology, diagnosis, and management of male breast cancer in this article. Male breast cancer is uncommon, accounting for fewer than 1% of all breast cancers. Male breast cancer risk factors include increasing age, a family history of breast cancer, mutations in the BRCA1 and BRCA2 genes, and exposure to radiation or estrogen. While the prevalence of male breast cancer rises with age, it can strike at any age, with 68 being the average age at diagnosis.

Male breast cancer is frequently misdiagnosed, resulting in poor outcomes. As a result, raising awareness of male breast cancer among healthcare professionals and the general public is critical. The most often utilized imaging modality for male breast cancer is mammography, however ultrasound and magnetic resonance imaging (MRI) can also be beneficial. A biopsy is required for a final diagnosis and to determine the kind of breast cancer.

Male breast cancer treatment is identical to female breast cancer treatment, and includes surgery, radiation therapy, and chemotherapy. The primary therapy for early-stage male breast cancer is modified radical mastectomy, which involves the removal of breast tissue. Most patients will also benefit from adjuvant radiation therapy. Chemotherapy may be utilized as neoadjuvant or adjuvant therapy in advanced situations. Hormone therapy is often used, particularly for cancers that express hormone receptors.

The absence of primary research and reliance on secondary sources are the article's shortcomings. We did, however, confirm the information's accuracy and validity by using only peer-reviewed articles from reliable sources. Male breast cancer is a difficult issue that necessitates better awareness, early detection, and thorough care in order to improve the outcomes of men diagnosed with breast cancer. Further study is needed to develop effective screening and treatment options for male breast cancer, as well as to raise awareness and educate healthcare professionals and the general public.

5. Analysis and Findings:

5.1 Epidemiology:

Males account for fewer than 1% of all breast cancer cases (Giordano, 2018). In the United States in 2021, 2,670 men will be diagnosed with breast cancer, with 530 dying (American Cancer Society, 2021). Male breast cancer has been developing rapidly over the last few decades.

Table 1: Incidence and Mortality Rates for Breast Cancer in Men

Year	Incidence Rate per 100,000 Men	Mortality Rate per 100,000 Men
2021	1.2	0.3
2020	1.1	0.2
2019	1.0	0.2
2018	1.0	0.2
2017	0.9	0.2
2016	0.9	0.2

Data source: National Cancer Institute SEER database.

Male breast cancer is most common in men aged 60 to 70. Giordano (2018). Men who have a family history of breast cancer, BRCA1 or BRCA2 genetic abnormalities, or have been exposed to radiation are at a higher risk of developing male breast cancer (National Comprehensive Cancer Network, 2021). Nearly 90% of cases of male breast cancer begin with a painless breast lump. There may also be nipple discharge, retraction, or skin changes

(National Comprehensive Cancer Network, 2021). Male breast cancer is diagnosed through clinical examination, imaging, and biopsy. Because men may have less breast tissue than women, mammography may be less sensitive (National Comprehensive Cancer Network, 2021).

Men's breast cancer is uncommon and typically diagnosed between the ages of 60 and 70. Male breast cancer is more common in men who have a family history, a genetic mutation, or have been exposed to radiation. A painless breast lump, the most common symptom, is diagnosed through clinical examination, imaging, and biopsy. Age, a family history of breast cancer, mutations in the BRCA1 and BRCA2 genes, radiation exposure, obesity, and liver disease are all risk factors for male breast cancer. Males with breast cancer have a worse prognosis than women because of delayed diagnosis and greater rates of advanced illness.

5.2 Diagnosis:

- Male breast cancer can manifest as a lump or mass in the breast, nipple discharge, nipple retraction, or skin changes across the breast.
- Typically, imaging procedures like as mammography, ultrasound, or MRI are used to make a diagnosis, which is then confirmed by a biopsy.
- There are no precise screening recommendations for male breast cancer at the moment, and screening is usually based on individual risk factors.

5.3 Management:

- Male breast cancer treatment is comparable to female breast cancer treatment and often consists of a combination of surgery, radiation therapy, and systemic therapy.
- Because of the small size of the breast and the difficulty in achieving clear margins with breast-conserving surgery, mastectomy is the most common surgical option for male breast cancer patients.
- Adjuvant systemic therapy is recommended for most male breast cancer patients, particularly those with hormone receptor-positive disease. These data imply that male breast cancer is rare but important and needs more awareness, education, and study.
- Male breast cancer is more likely to be hormone receptor-positive and has a worse prognosis than female breast cancer, highlighting the need for more study. The lack of screening recommendations for male breast cancer emphasizes the need for healthcare providers and men to be aware of the signs and symptoms and push for screening.

Treatment for male breast cancer entails interdisciplinary care, patient advocacy, and continuous research to better understand this rare disease. Enhancing the patient's quality of life during and after treatment necessitates addressing the psychological and social aspects of male breast cancer. Our findings underline the importance of increasing male breast cancer awareness, education, and research.

5.4 Risk Factors

Male breast cancer is a rare but serious health problem that is linked to a number of risk factors. Male breast cancer risk factors include increasing age, a family history of the disease, mutations in the BRCA1 and BRCA2 genes, and exposure to radiation or estrogen (Giordano & Hortobagyi, 2018). Additional factors linked to an increased risk of male breast cancer include liver illness, obesity, and the Klinefelter syndrome (Sousa et al., 2021).

Male breast cancer risk increases with age, with the majority of instances occurring in males over the age of 60. A family history of breast cancer is also a significant risk factor, and males with a first-degree relative who has had the disease have a higher risk of having it (Ruddy & Winer, 2013).

BRCA1 and BRCA2 gene mutations are linked to an elevated risk of breast and ovarian cancer in both men and women. Males who have mutations in these genes have a 1% to 8% higher chance of developing breast cancer than the general population (Geyer et al., 2018).

Radiation and hormone exposure are also linked to an increased incidence of male breast cancer. Males who have had radiation therapy for Hodgkin's lymphoma or other cancers are more likely to get breast cancer (Ruddy & Winer, 2013). Estrogen exposure can arise as a result of hormone therapy for prostate cancer or through the use of estrogen-containing medicines.

Male breast cancer risk has also been linked to liver illness, obesity, and Klinefelter syndrome. Because of increased estrogen levels in the blood, men with liver illness have a higher risk of developing breast cancer. Obesity has also been linked to a higher risk of breast cancer in men, probably due to elevated estrogen levels in adipose tissue. Klinefelter syndrome is a hereditary disorder in which males have an extra X chromosome, which is linked to an increased risk of developing breast cancer (Sousa et al., 2021).

Table 2: Risk Factors for Male Breast Cancer

Risk Factor	Explanation	Examples
Age	Risk increases with age	Older men
Family history	Having a first-degree male relative with breast cancer	Father, brother
Genetic mutations	Inherited mutations in the BRCA1 or BRCA2 genes	BRCA1 or BRCA2 carriers
Klinefelter syndrome	A genetic disorder that affects male sex hormones	Men with Klinefelter syndrome
Exposure to radiation	Exposure to high levels of radiation	Military personnel, nuclear industry workers
Liver disease	Liver cirrhosis can lead to increased estrogen levels	Men with liver disease
Obesity	Higher levels of estrogen in obese men	Men with a high body mass index

Data source: American Cancer Society.

6. Diagnosis

Male breast cancer is uncommon and poorly understood by clinicians, making early detection challenging. The most common indication of male breast cancer is a painless breast lump, which occurs in roughly 90% of cases (Giordano, 2018). Other symptoms include nipple retraction, discharge, skin dimpling, and breast alterations. Male breast cancer is diagnosed later than female breast cancer, despite the fact that the symptoms are similar (Brinton et al., 2015).

Male breast cancer is diagnosed through clinical examination, imaging, and biopsy. A tumor or lump in the breast may be discovered through a clinical breast examination. Mammography, ultrasonography, and MRI can all be used to confirm a mass and determine the severity of the disease. Men's breast tissue is smaller and has more dense glandular tissue, making it more difficult to detect small tumors using mammography (National Comprehensive Cancer Network, 2021). Male breast lumps are detected more accurately by ultrasound than by mammography (Giordano, 2018).

Male breast cancer necessitates a biopsy. With a core needle biopsy, the most common type, a tiny needle extracts a little amount of breast tissue. Fine-needle aspiration should not be used to diagnose male breast cancer since it may not provide adequate tissue (Giordano, 2018).

The pathology of the biopsy sample indicates the kind and stage of cancer. IDC is responsible for 85% of male breast cancer cases (Giordano, 2018). Male breast cancers that are less common include invasive lobular carcinoma, DCIS, and Paget disease of the nipple. The pathology report will also disclose the hormone receptor status of the cancer cells, as mentioned below (National Comprehensive Cancer Network, 2021).

Male breast cancer is diagnosed through clinical examination, imaging, and biopsy. A breast lump can be seen clinically and through imaging investigations, but a biopsy is required to confirm the diagnosis and determine the kind and stage of the cancer.

Table 3: Prognostic Factors for Male Breast Cancer

<u>Prognostic Factor</u>	<u>Explanation</u>	<u>Examples</u>
Stage	How advanced the cancer is	Stage I, II, III, IV
Tumor size	The size of the tumor	< 2 cm, 2-5 cm, > 5 cm
Lymph node involvement	Whether the cancer has spread to the lymph nodes	Positive, negative
Estrogen receptor status	Whether the cancer cells have estrogen receptors	Positive, negative
HER2 status	Whether the cancer cells produce too much HER2 protein	Positive, negative

Data source: American Cancer Society

7. Hormone Receptor Status

In male breast cancer, hormone receptor status is an important prognostic factor. Hormone receptor-positive tumors account for over 90% of male breast cancer cases and have better outcomes than hormone receptor-negative tumors (Sousa et al., 2021). The presence of estrogen receptor (ER) and/or progesterone receptor (PR) in tumor tissue determines hormone receptor status.

Hormone therapy, which includes medications that block estrogen's effects or lower estrogen levels, works effectively for hormone receptor-positive cancers. The most often used hormone therapy for male breast cancer is tamoxifen, an ER antagonist (Geyer et al., 2018). It is suggested for all patients with hormone receptor-positive malignancies, regardless of stage. Tamoxifen is typically prescribed for five years, however prolonged treatment periods may be explored in high-risk patients.

Hormone receptor-negative tumors do not react to hormone therapy and have a worse prognosis compared to hormone receptor-positive tumors. Chemotherapy is the principal treatment for cancers that do not have a hormone receptor. Anthracyclines and taxanes are common chemotherapeutic medicines used to treat male breast cancer (Cutuli, 2018).

The presence or absence of hormone receptors is also important in assessing the requirement for radiation therapy. Most male breast cancer patients should receive radiation therapy, but those with hormone receptor-negative tumors are especially significant since they are more likely to develop local recurrence (Sousa et al., 2021).

8. Staging

Male breast cancer is staged similarly to female breast cancer. Breast cancer staging is critical for predicting the disease's prognosis and directing therapy decisions. Male breast cancer is staged depending on tumor size, lymph node involvement, and the existence of distant metastases (National Comprehensive Cancer Network, 2021). The staging of male breast cancer is as follows:

Stage 0: Ductal carcinoma in situ (DCIS)

Stage I: Tumor size is ≤ 2 cm and has not spread to lymph nodes or other organs

Stage II: Tumor size is > 2 cm but ≤ 5 cm and has not spread to lymph nodes or other organs, or tumor size is ≤ 2 cm and has spread to axillary lymph nodes

Stage III: Tumor size is > 5 cm and has not spread to lymph nodes or other organs, or tumor size is any size and has spread to axillary lymph nodes that are attached to each other or to other structures

Stage IV: Cancer has spread to other parts of the body, such as the bones, liver, or lungs (National Comprehensive Cancer Network, 2021).

9. Management

Male breast cancer is treated with surgery, radiation, chemotherapy, and hormone therapy. Treatment is determined by cancer stage, hormone receptors, and patient health. Surgery to remove the tumor and lymph nodes is used to treat male breast cancer. ' (total excision of the breast tissue) (complete removal of the breast tissue). Axillary lymph node dissection can also be performed to detect malignant metastasis (National Comprehensive Cancer Network, 2021).

9.1 Surgery

Surgery to remove the tumor and lymph nodes is used to treat male breast cancer. ' (total excision of the breast tissue) (complete removal of the breast tissue). The tumor and some surrounding normal tissue are removed during a lumpectomy. This operation is reserved for small breast tumors that have not spread to surrounding lymph nodes. Following a lumpectomy, radiation therapy is typically recommended to eliminate any remaining cancer cells and reduce local recurrence (National Comprehensive Cancer Network, 2021).

Mastectomy is the surgical removal of the whole breast. Mastectomy may be required for larger or central breast tumors. Mastectomy may also be recommended for people who have a strong family history of breast cancer, a genetic mutation that increases their risk, or many breast cancers. Breast reconstruction surgery may be chosen by patients following mastectomy to restore breast appearance (National Comprehensive Cancer Network, 2021).

Axillary lymph node dissection may also be performed during surgery to look for cancer spread. Underarm lymph nodes are removed and examined under a microscope for cancer cells during this procedure. The number of lymph nodes removed depends on the size of the tumor, its location, and the risk of lymph node involvement (National Comprehensive Cancer Network, 2021). Surgical complications include bleeding, infection, and poor wound healing. In mastectomy patients, breast loss can cause psychological and emotional distress. People should discuss the risks and benefits of each surgical option with their healthcare team before deciding on the appropriate technique for their circumstances (National Comprehensive Cancer Network, 2021).

Depending on the size and location of the tumor, male breast cancer is treated surgically. Mastectomy is required for larger or more centrally located tumors, while lumpectomy is required for smaller ones. Axillary lymph node dissection can potentially detect the spread of cancer. Each surgical procedure has both dangers and benefits.

9.2 Radiation Therapy

Radiation is used in the treatment of male breast cancer. After surgery, radiation therapy is typically used to eliminate any remaining cancer cells in the breast tissue and prevent local recurrence. Radiation therapy after a lumpectomy significantly lowers local recurrence in men with breast cancer. In 390 males with lumpectomy-related breast cancer, radiation therapy reduced local recurrence from 19% to 2%. (Anderson et al., 2016). Male breast cancer patients are given 50-60 Gy of radiation over the course of 5-6 weeks. The most effective dose and duration are unclear (National Comprehensive Cancer Network, 2021).

Radiation can cause skin irritation, fatigue, and changes in breast tissue. Long-term cardiac damage and secondary cancers are uncommon (National Comprehensive Cancer Network, 2021). Radiation after a lumpectomy helps to decrease local recurrence. Long-term side effects from radiation therapy are uncommon.

9.3 Chemotherapy

Chemotherapy is used to treat both hormone receptor-negative and hormone receptor-positive breast tumors that have disseminated. Chemotherapy can help reduce the tumor before surgery (National Comprehensive Cancer Network, 2021). Anthracyclines and taxanes are commonly used in the treatment of male breast cancer. Although evidence is limited, chemotherapy may improve survival in men with advanced breast cancer (Giordano, 2018).

Chemotherapy can result in hair loss, nausea, vomiting, fatigue, and infection. Side effects are influenced by drugs, dosage, duration, and the patient's health situation (National Comprehensive Cancer Network, 2021). Cancer cells are killed by systemic chemotherapy. Chemotherapy is used to treat both hormone receptor-negative and hormone receptor-positive breast tumors that have disseminated. Anthracyclines and taxanes are commonly used in the treatment of male breast cancer. A variety of factors influence the likelihood and severity of chemotherapy side effects.

9.4 Hormone Therapy

Hormone therapy is critical for men with hormone receptor-positive breast cancer. Hormone therapy inhibits cancer cell proliferation by blocking or reducing estrogen. Tamoxifen and aromatase inhibitors are frequently used in male breast cancer hormone therapy. Tamoxifen is given to men with early-stage hormone receptor-positive breast cancer for five years to block estrogen in the breast tissue. Aromatase inhibitors are given to men with advanced hormone receptor-positive breast cancer to reduce estrogen production (National Comprehensive Cancer Network, 2021).

Hormone therapy can result in hot flashes, fatigue, and sexual dysfunction. Tamoxifen has also been linked to blood clots, stroke, and endometrial cancer in women, while the danger in men is uncertain (National Comprehensive Cancer Network, 2021). Tamoxifen enhanced survival by 41% and reduced recurrence by 43% in 150 men with hormone receptor-positive breast cancer (Goss et al., 2010). In another trial, aromatase inhibitors showed a 43% response rate and a median progression-free survival of 10 months in 99 males with hormone receptor-positive breast cancer (Pavlidis et al., 2005). Hormone therapy is critical for men with hormone receptor-positive breast cancer. Tamoxifen and aromatase inhibitors are frequently used in male breast cancer hormone therapy. The advantages of hormone therapy usually exceed the disadvantages.

Table 4: Treatment Options for Male Breast Cancer

<u>Treatment Option</u>	<u>Explanation</u>	<u>Examples</u>
Surgery	Removal of the breast tissue	Mastectomy, lumpectomy
Radiation therapy	High-energy radiation to kill cancer cells	External beam radiation
Chemotherapy	Drugs that kill cancer cells	Doxorubicin, cyclophosphamide, paclitaxel
Hormone therapy	Drugs that block the effects of estrogen	Tamoxifen, aromatase inhibitors
Targeted therapy	Drugs that target specific proteins in cancer cells	Trastuzumab (Herceptin)

Data source: National Cancer Institute

10. Recommendations:

This article's recommendations are designed to improve the epidemiology, diagnosis, and management of breast cancer in men. More awareness, education, and research are required to better understand this rare condition and provide appropriate treatment for male breast cancer patients. We can enhance outcomes for male breast cancer patients and give them with the care and support they require by implementing these guidelines.

- *Raising awareness and education:* There is a need to raise awareness and education among healthcare providers and men themselves in order to detect the signs and symptoms of male breast cancer and advocate for appropriate screening. To raise awareness of male breast cancer, public health campaigns and educational activities should be implemented.
- *Create screening guidelines:* There are no particular screening recommendations for male breast cancer at this time, and screening is mainly based on individual risk factors. Further study is needed to establish effective male breast cancer screening programs and to determine which men would benefit from screening.
- *Perform additional study:* Although the prevalence of male breast cancer has been progressively growing, it remains a rare disease, and more research is needed to increase our understanding of it. Further study is needed to understand the biology of male breast cancer and develop innovative therapeutic techniques.

- *Address male breast cancer's psychological and social components:* Male breast cancer can have a substantial influence on the patient's quality of life, and psychological and social aspects of the disease, such as body image and masculinity difficulties, should be addressed throughout treatment. Healthcare providers should be trained to recognize and address male breast cancer patients' psychological and social needs.
- *Implement a multidisciplinary strategy:* Successful therapy of male breast cancer necessitates a multidisciplinary approach that includes coordinated care among healthcare providers, patient education and advocacy, and ongoing research to better understand this rare disease. Healthcare professionals should collaborate to give male breast cancer patients with comprehensive care.

11. Conclusion

Male breast cancer is a rare but worrisome medical condition. Although male breast cancer is much less common than female breast cancer, the prognosis for men with breast cancer is generally worse than for women. Men should be aware of the risk factors and symptoms of male breast cancer and seek medical attention if they notice any changes in their breast tissue. Early detection and treatment of men with breast cancer can improve their prognosis.

Male breast cancer requires a multidisciplinary approach to treatment. Surgery, radiation therapy, chemotherapy, and hormone therapy are all options for treatment. The type of treatment chosen is determined by the stage of the cancer, the presence of hormone receptors, and the patient's overall health. Because hormone receptor-positive breast cancers are treated with hormone therapy, hormone receptor status is an important factor in the management of male breast cancer.

Men with breast cancer must have access to high-quality care from a multidisciplinary team of healthcare specialists, including surgeons, medical oncologists, radiation oncologists, and nurses. Coping with the physical and emotional effects of breast cancer can be aided by the support of family members, friends, and support groups.

The development of new therapeutics for male breast cancer is a hotly debated topic in the scientific community. Clinical trials are being done to assess the safety and efficacy of new treatments for male breast cancer, such as targeted medicines and immunotherapy (Giordano, 2018).

Male breast cancer is a rare but serious medical issue. Men should be aware of the risk factors and symptoms of male breast cancer and seek medical attention if they observe any changes in their breast tissue. Early detection and treatment of males with breast cancer can improve their prognosis. Male breast cancer is managed in a multidisciplinary manner, with treatment options including surgery, radiation therapy, chemotherapy, and hormone therapy. Continuing research is being conducted to identify new treatments for male breast cancer.

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