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Paper Authors

Dr. Amit Kumar Dutta & Ms. Surbhi Kumari



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Awareness and Prevention Behaviour of Breast Cancer Among the Women in Jharkhand: Identifying Barriers to Early Detection

Dr. Amit Kumar Dutta^{1*} & Ms. Surbhi Kumari¹

¹Amity Institute of Biotechnology, Amity University Jharkhand, Ranchi, India- 834001.

Orcid ID: 0000-0002-6935-4726* & 0000-0002-6243-1573

[Corresponding Author E-mail: drakdutta81@gmail.com, Orcid ID: 0000-0002-6935-4726]

Abstract

Breast cancer is the most common type of cancer developed in women. It is the major cause of deaths due to cancer in women. It is the second most common cancer after skin cancer. Human cells grow and multiply through cell division to form new cells as the body needs them to replace and repair the old, dead cells. But in breast cancer, the breast cells start growing and multiplying abnormally and at a faster rate. The risk of breast cancer increases as the age increases, majorly after 50 years of age. Most breast cancers are found in women who are older than 50 years. The treatment of breast cancer includes surgery, chemotherapy, hormone therapy and radiation depending on the stage of cancer. The risk of having breast cancer decreases when we follow healthy habits like proper diet, healthy weight, being fit and active, avoiding consumption of tobacco and alcohol.

Keywords:

Cancer, Breast Cancer, Benign and Malignant Tumor, Risk Factors, Barriers, Treatment, tumor^[1] (Fig No.1)

Introduction

Cancer is a disease in which some of the cells of the body start growing and dividing in an uncontrolled way which destroys nearby normal and healthy cells. In general, body cells divide to form new cells to replace damaged cells. But in cancer, the cells divide even if it is not needed, which further spreads to other parts of the body. These abnormal cells are called cancer cells or tumor cells. Cancer cells break from one part of the body, travel through blood and form a new tumor in other parts of the body. Cancer is a major cause of death world widely. It accounted for 8.2 million deaths around the world. If the cell is abnormal, grows rapidly and spreads to other parts of the body, they are cancerous cells. Then, it is called malignant tumor. If the cell is quite normal, grows slowly and does not spread to other parts of the body, then they are non-cancerous cells. Then, it is called benign

Diagnosis at advanced stages of disease contributes to the high mortality rate among women due to breast cancer, which can be attributed to low levels of awareness, cumbersome referral pathways to diagnosis, limited access to effective treatment at regional cancer centers and incomplete treatment regimens^[1,10]. With the rising breast cancer incidence in India^[2] and disproportionately higher mortality^[9], it is essential to understand the level of cancer literacy, especially since the average age at diagnosis is 10 years younger than women in Western countries^[2]. An assessment of existing levels of cancer awareness is a prerequisite for planning comprehensive health programmes, early detection, and treatment campaigns^[3], that effectively engage communities of women and men.

The main recognized methods of screening/early detection involve mammography, clinical breast examination (CBE), and breast self-examination (BSE).^[6] Regarding BSE, the American Cancer Society and other leading cancer agencies have recommended monthly BSE in women,^[7] and we have discovered BSE to be very strongly associated with early presentation in our studies.^[5-7] Diagnosis at an earlier stage allows women more treatment choices and consequently a greater chance of long-term survival and a better quality of life.^[4]

There are more than 200 types of Cancer, but mainly there are 4 types of cancer which covers maximum percentage of all types of cancer. The remaining 196 types of cancer are not that much common. The types of cancer depend on age, gender as for example, prostate cancer only affects men whereas breast cancer is more likely in women.

The treatment of cancer mainly depends on the type of cancer, its location and stage of the cancer. There are several measures that can be taken to prevent or reduce the risk of having cancer. One should avoid tobacco and smoking, limit the intake of processed meats, avoid alcohol, avoid sun exposure, eat healthy and balanced diet, do physical activities regularly, maintain a proper body weight, get vaccine for viral infections, visit regularly for complete body checkup.

Materials and Methods

Jharkhand ("The land of forest") is a state in eastern India, created on 15 November 2000, from what was previously the southern half of Bihar. The state shares its border with the states of Bihar to the north, Uttar Pradesh to the northwest, Chhattisgarh to the west, Odisha to the south and West Bengal to the east. It has an area of 79,710 km² (30,778 sqm). It is the 15th largest state by area, and the 14th largest by population. Hindi is the

official language of the state. The city of Ranchi is its capital and Dumka its sub capital. The state is known for its waterfalls, hills and holy places: Baidyanath Dham, Parasnath and Rajrappa are major religious sites. **(Fig No.2)**

Presently Maximum Countries are undergoing with Pandemic and extended Lockdown as pandemic is a disease outbreak that spreads across countries or continents. It affects more people and takes more lives than an epidemic. Due to the Extended Lockdown and the spread of Corona Virus, it was not possible to conduct the Research Work Offline. So, we have read various research papers and articles on American Cancer Society, Mayo Clinic, NCI, WebMD, health line, medical news, NCBI, News Today, etc. which were associated with the Breast cancer.

Globally, Breast Cancer has become the leading cause of mortality in women. Awareness and early detection can curb the growing burden of Breast Cancer & are the first step in the battle against Breast Cancer. The aim of this qualitative study was to explore the awareness and perceived barriers concerning the early detection of Breast Cancer.

In the meantime, we have searched the Official Websites and gone through the statistics of Breast cancer in Jharkhand and also globally for comparative study. We have collected some data from other sources and done survey related to cancer about which area is most affected in Jharkhand as well as all over India, either male or female who is more likely to have breast cancer, which age group is more affected, what are their food habits and clothing style etc.

A Focus Group Discussions (FGDs) were conducted during Jan 2022– July 2022. Pre-existing themes were used to conduct FGDs; each Focus Group Discussions (FGD) group consisted of an average of ~10 women (aged ≥ 18 –65 years) to whom we reached for the pilot study. During the time of interaction preferably used local regional languages and taken the help of local peoples. Based on emerged codes and categories, thematic analysis was done, and theory was developed by using the grounded theory approach. The term grounded theory reflects the concept that theory emerging from this type of work is grounded in the data.^[2- 3] Emerging categories were defined and redefined using the method of constant comparison from unstructured or semi-structured qualitative data.^[3] This survey helped us to do a comparative study on cancer by analyzing the data related to cancer and different diseases that people of different areas, different age group and different gender are having.

Results & Discussion

Based on the responses of the survey done related to Health and Diseases, various graphs have been plotted which shows how the percentage of cancer patients varies depending on people of different gender, age groups, state, food habits, clothing, consumption of alcohol and non-veg. The risk of having breast cancer increases with increase in age. Also, females are most likely to have breast cancer. Living in areas with higher air pollution level can increase the chances of having breast cancer. Consumption of non-veg and alcohol can cause breast cancer. Also, food habits affect our health and obesity can increase the chances of having breast cancer. Our clothing can also impact having breast cancer.

Breast cancer is most likely to occur in Women as compared to men. It is 100 times

more common in Women's. Being women is the main risk of having breast cancer. As the breast cells are exposed to female hormones like estrogen and progesterone for constant growth effects. **(Graph 1)** The risk of having breast cancer increases with increase in age. As a person gets old or reaches the age of around 50 or above, the chances of developing breast cancer increase. About 1 out of 8 breast cancer is found in younger women, whereas 3 out of 8 breast cancer is found in women older than 55. **(Graph 2)** Chances of having breast cancer is more in women's living in rural areas or areas with less medical care where diagnosis of breast cancer is not done properly and at the right time. Also, living in more air polluted area can affect to cause breast cancer. **(Graph 3)**

The choice of eating non-veg items can have a great impact on increasing the risk of having breast cancer. Eating non-veg diet and not exercising regularly can cause breast cancer. Too much meat can increase the chances of developing breast cancer. **(Graph 4)** Eating fried foods and high fat containing food items can increase the chances of having breast cancer. Foods with High fat can lead to obesity and can make a person overweight, which directly increases the chances of breast cancer. Processed food items and junk foods are more likely to cause breast cancer. **(Graph 5)** People working in textile or cloth industry are more likely to have breast cancer. The style of clothing can affect the chances of developing breast cancer. Avoid tight fitting clothes and wear cozy clothes. The quality of fashion can have a great impact on the quality of life. **(Graph 6)** Consumption of alcohol can affect health and it increases the chances of having breast cancer. It increases the levels of estrogen in the body which is constantly used by the body for growth. It can also damage the cells of the body. It is the most important risk factor for the development of breast cancer. **(Graph 7)**

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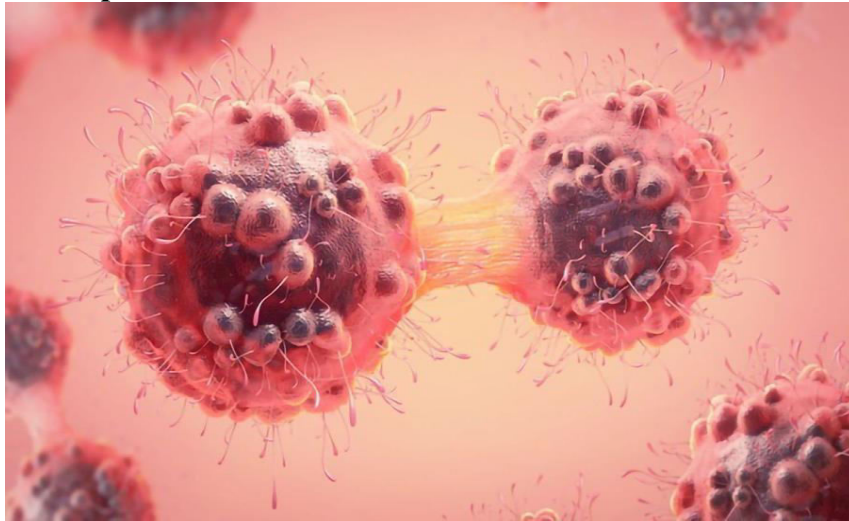
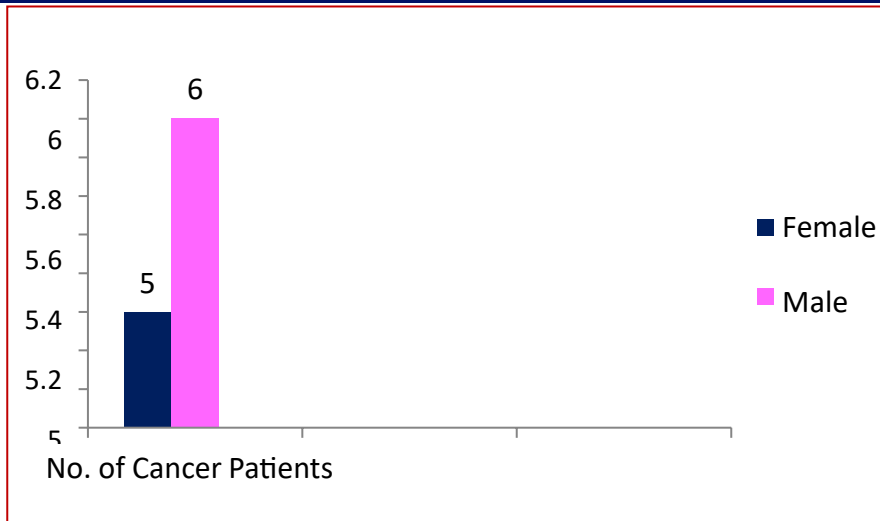
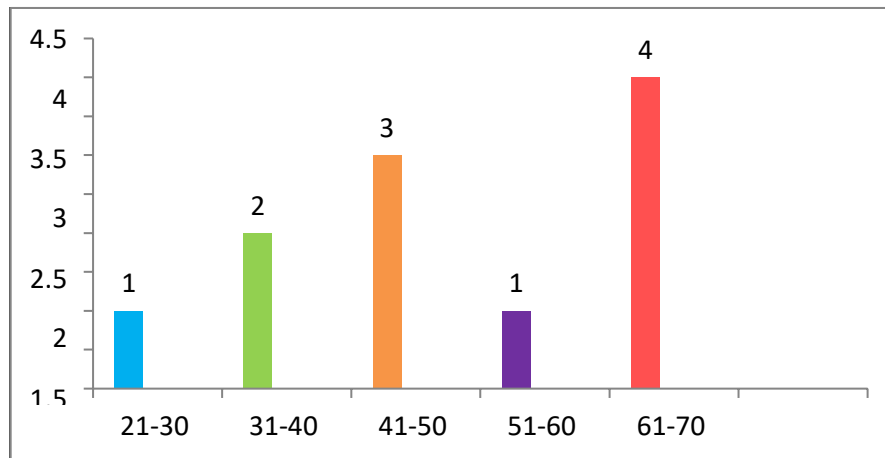


Fig No.1 Showing the Breast cancer Cell

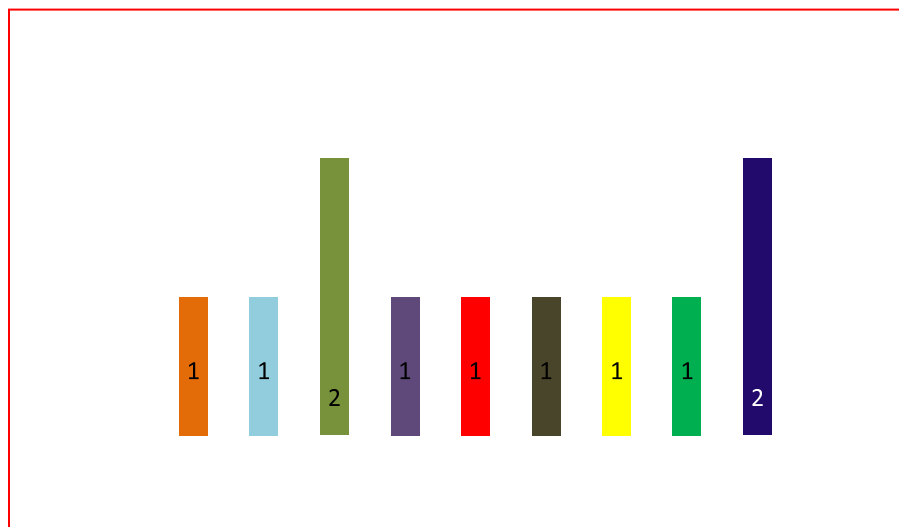
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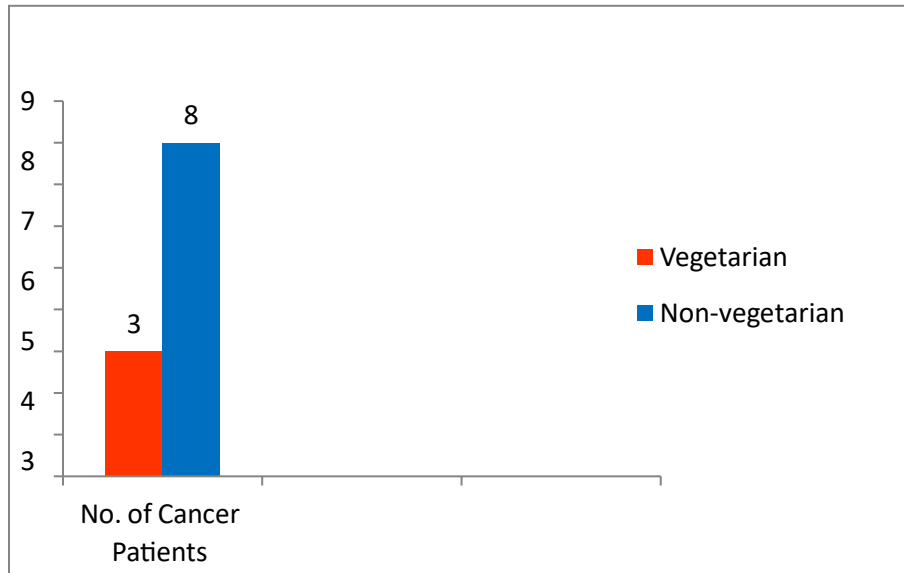
Graph-1 showing the Gender Vs No. of Patients



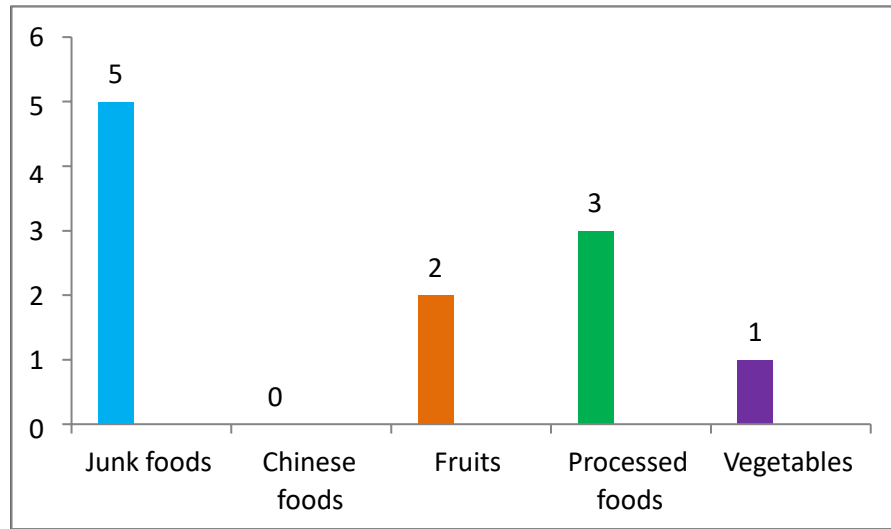
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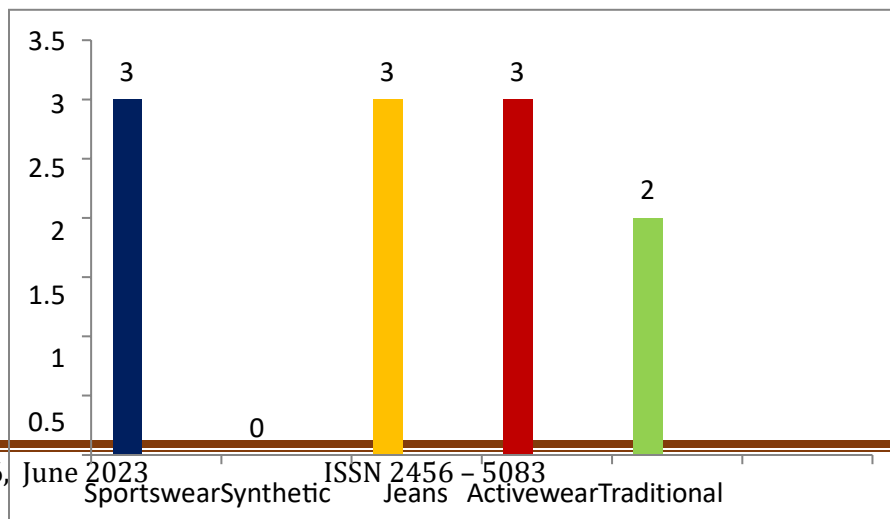
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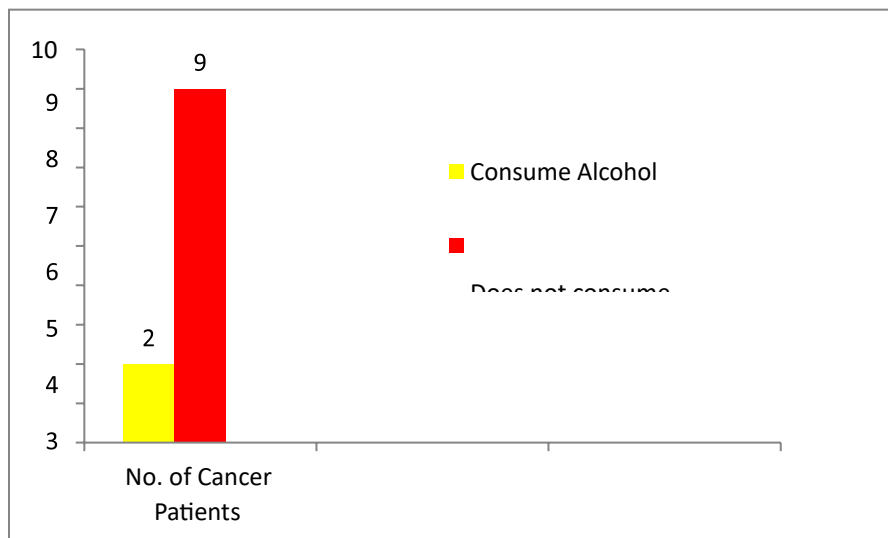
Graph-4: Non-vegetarians VS No. of Patients



Graph-5: Food Habits Vs No. of Patients



Graph-6: Clothing VS No. of Patients



Graph-7: Alcohol VS No. of Patients

Conclusion

Breast cancer is the second most leading cause of death in women. Due to the lack of general awareness about breast cancer among the population of India, there was a poor rate of diagnosis, preventing and treating breast cancer. As this disease is not known to everyone and is a neglected disease. We thought to work on this topic of breast cancer regarding awareness and prevention of the disease. These will help to make people aware about breast cancer, its causes, symptoms, diagnosis, treatment and its preventive measures. As more and more people get to know about the disease, they can self-examine themselves and their near and dear ones and can also help others to prevent it at the right time. Breast cancer awareness provides women with some acknowledgement which can help them in empowering themselves to fight against breast cancer. This awareness will directly help in decreasing the number of incidence cases of breast cancer. Thus, the mortality rate of breast cancer will also decline.

Acknowledgement

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Conflict of Interest

Authors have no conflicts of interest to declare.

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References

- [1] A. Jemal, F. Bray, M.C. Melissa, F. Jacques, W. Elizabeth and D. Forman, "Global Cancer Statistics," *CA Cancer J Clin*, Vol. 61, 2011, pp. 69–90. <https://acsjournals.onlinelibrary.wiley.com/doi/abs/10.3322/caac.20107>
- [2] K. Sharma, A. Costas, L.N. Shulman and J.G. Meara, "A systematic review of barriers to breast cancer care in developing countries resulting in delayed patient presentation," *Journal on Oncology*, 2012. <https://doi.org/10.1155/2012/121873>
- [3] S. Jones and K. Johnson, "Women's awareness of cancer symptoms: a review of the literature," *Women's Health*, Vol. 8, 2012, pp. 579–591. <https://journals.sagepub.com/doi/pdf/10.2217/WHE.12.42>
- [4] S. Dey, "Preventing Breast Cancer in LMICs via screening and/or early detection: the real and the surreal," *World J Clin Oncol*, Vol. 5, 2014, pp. 509–519. <https://doi.org/10.5306%2Fwjco.v5.i3.509>
- [5] S. Pati, M.A. Hussain, A.S. Chauhan, D. Mallick and S. Nayak, "Patient navigation pathway and barriers to treatment seeking in cancer in India: a qualitative inquiry," *Cancer Epidemiol*, Vol. 37, 2013, pp. 973–978. <https://doi.org/10.1016/j.canep.2013.09.018>
- [6] L. Torre, F. Bray, R.L. Siegel, J. Ferlay, J. Lortet-Tieulent and A. Jemal, "Global Cancer Statistics, 2012," *CA Cancer J Clin*, Vol. 65, 2015, pp. 87–108. <https://doi.org/10.3322/caac.21262>
- [7] N.A. Alwan, J.K. Al-Diwan, A.A. Wafa'M, R.A. Eliessa, "Knowledge, attitude & practice towards breast cancer & breast self-examination in Kirkuk University, Iraq," *Asian Pac J Reproduction*, Vol. 1, 2012, pp. 308–311. [https://doi.org/10.1016/S2305-0500\(13\)60098-6](https://doi.org/10.1016/S2305-0500(13)60098-6)
- [8] R.A. Al-Naggar, D.H. Al-Naggar, Y.V. Bobryshev, R. Chen and A. Assabri, "Practice and barriers toward breast self-examination among young Malaysian women," *Asian Pac J Cancer Prev*, Vol. 12, 2011, pp. 1173–1178. http://journal.waocp.org/article_25673.html
- [9] J.M. Stapleton, P.B. Mullan, S. Dey, A. Hablas, R. Gaafar, I. A. Seifeldin, M. Banerjee, and A.S. Soliman, "Patient-mediated factors predicting early- and late-stage presentation of breast cancer in Egypt," *Psychooncology*, Vol. 20, 2011, pp. 532–537. <https://doi.org/10.1002/pon.1767>
- [10] S.J. Pilipshen, J. Gerardi, S. Bretsky and G.F. Robbins, "The Significance of Delay in Treating Patients with Potentially Curable Breast Cancer," *Breast*, Vol. 10, 1984, pp. 16–23.
