



ORIGINAL ARTICLE

Breast Diseases: Role of Gynaecologist Present and Future - An Indian Scenario

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Abstract

During the life period of a female, female breast as organ is undergo constant physical and physiological changes that are related to puberty, the menstrual cycle, pregnancy, lactation, and menopause. It has always been an emblem of womanhood, an important part of female reproductive system that influences Body image & Sexual function.

Either benign or malignant, any breast lesion is a cause of concern for patients even talking about the breast related conditions is considered a taboo in Indian society, that's why As compared to developed world where 70% cases diagnosed in early stage, in India only 30% cases reported in early stages.

In the context of the Indian scenario, Indian women feel comfortable talking about reproductive organs and relating queries including the breast related ones to obstetricians and gynaecologists irrespective of the gender of the treating physician, and in return, women expect to have their treating physician expert in, evaluation diagnosis, and management of breast problems that arise from self-examination, routine mammography, any unusual breast symptoms, or any unusual breast lump during routine gynaecology examinations.

Key words: female breast diseases, gynaecologist, screening, Indian scenario

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Introduction

Breast disease is as important as any other women's health issue and Obstetrics & Gynaecologic examination is incomplete without examination of the breasts. The gynaecologist act as specialist as well as the primary physician, and sometimes the only physician for the woman of all ages especially childbearing age and also for the woman after menopause.

Gynecologists by the very nature of their practices, are in an excellent position to find breast lesions than by any other physician. In Europe, and many parts of the world the surgically trained gynaecologist in breast diseases take part not only in detection and diagnosis as well as in the management i.e. surgical and medical treatment [1].

Mass screening campaign in the United States of America, clinical and mammographic screening of tens of thousands of women, could detect cancer 'early' and reduce mortality in screened groups proved to be [2].

The global prevalence of breast cancer is projected to exceed 2 million by 2030, with developing countries being the largest contributors. For India, incidence rates vary across the country, with the northeast and metropolitan areas (Mumbai, New Delhi) showing the highest rates [3].

Aim & Objective

1. To give picture about prevalence of female breast disease in respective region of India.

2. To make suggestions for the inclusion of Teachings on female breast diseases and mammography into the obstetrics and gynaecology residency curriculum so that residents have the skills to perform breast cyst aspiration, breast biopsy (incision or excision), and guided biopsy of nonpalpable lesions.
3. To make suggestion for inclusion of Post Graduate Obstetrics & Gynecology Specialist in breast surgery fellowships teaching program.

Prevalence of Breast Diseases in India

Method

We have gone through various latest research article to give present burden of breast diseases in India.

Benign and Malignant Breast Diseases

Burden of Benign Breast Diseases

Benign breast disease is the main explanation for breast problems.

About a quarter of women will have a benign breast condition that requires treatment at some point in their lives. Benign breast disease accounts for the majority of breast complaints and yet is largely ignored [4].

Benign lesions of the breast require attention due to their high prevalence, impact on women's lives, and potential cancer in some histological types [5] (Figure 1).

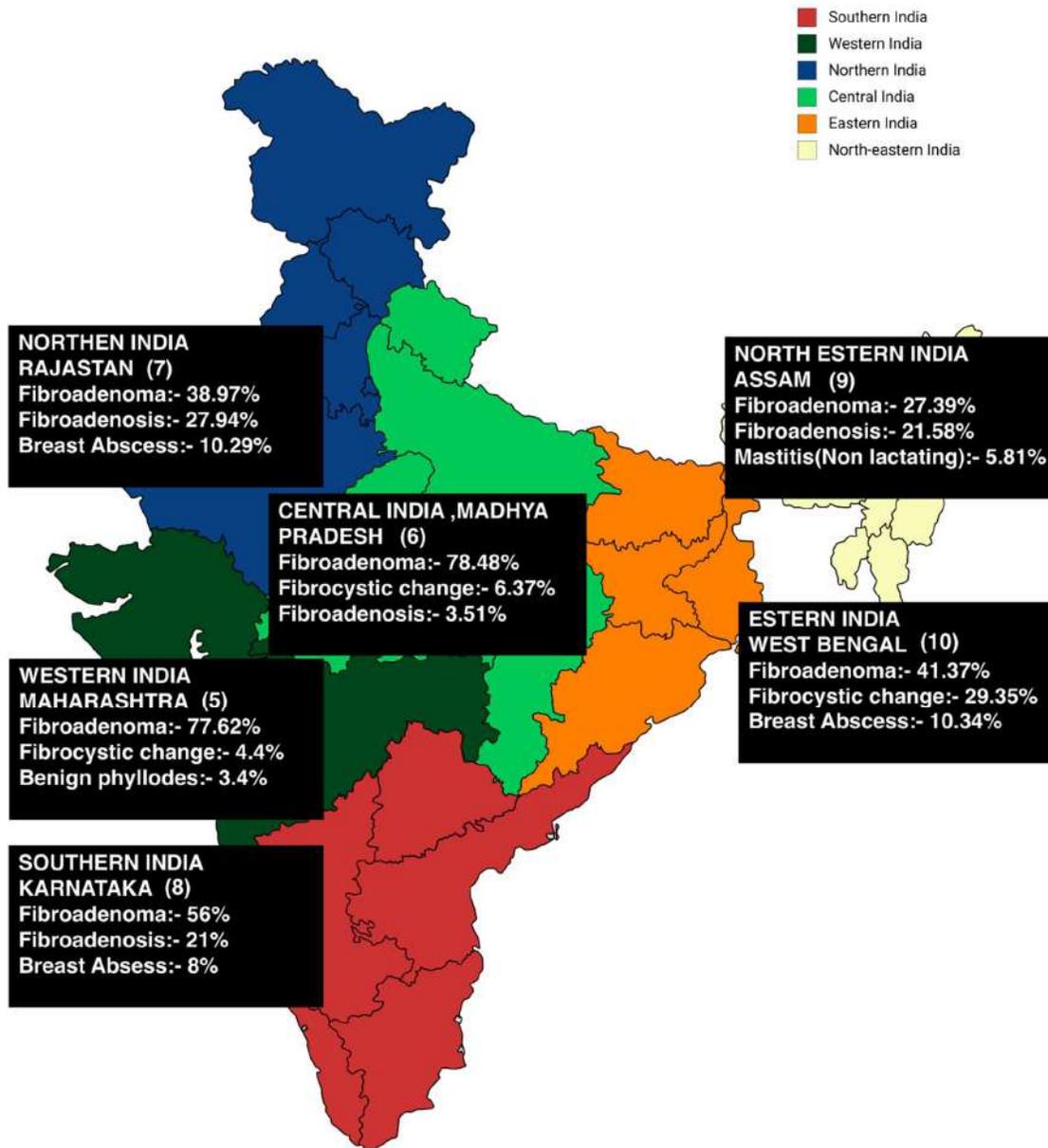


Figure 1. This map statistic shows the pattern & prevalence of benign breast diseases in different parts of India

Burden of Malignant Breast Disease

Number (n) and relative proportion (%) of gynaecologic cancers, including breast

cancer, associated with all cancer foci in women. National Cancer Registry Program, 2021. (Table 1).

Table 1. Report of Hospital-Based Cancer Registry, 2021, National Cancer Registry Program [11].

Site of cancer	No. of cases	% of cases
<i>Breast</i>	73,998	25.4
Cervix Uteri	44,300	15.2
Corpus Uteri	7,648	2.6
Ovary	18,411	6.3
Other Gynecological Cancers	3,981	1.4
Vulva	1,112	0.4
Vagina	1,749	0.6
Uterus part unspecified	691	0.2
Fallopian tube	216	0.1
Placenta	213	0.1
Gynecological cancers including breast cancer	1,48,338	51.0
All sites of cancer in women	2,90,986	100.0

Table 2. Breast Cancer -histological classification & Proportion (%) [11].

Broad histological classification	% of cases
Epithelial tumours	
Infiltrating duct carcinoma	89.7
Lobular carcinoma	1.8
Papillary carcinoma	0.5
Carcinoma, NOS	4.1
Fibroepithelial tumours	
Phyllodes tumour	0.6
Mesenchymal tumours	
Sarcoma	0.2
Others	3.1
Total	100.0

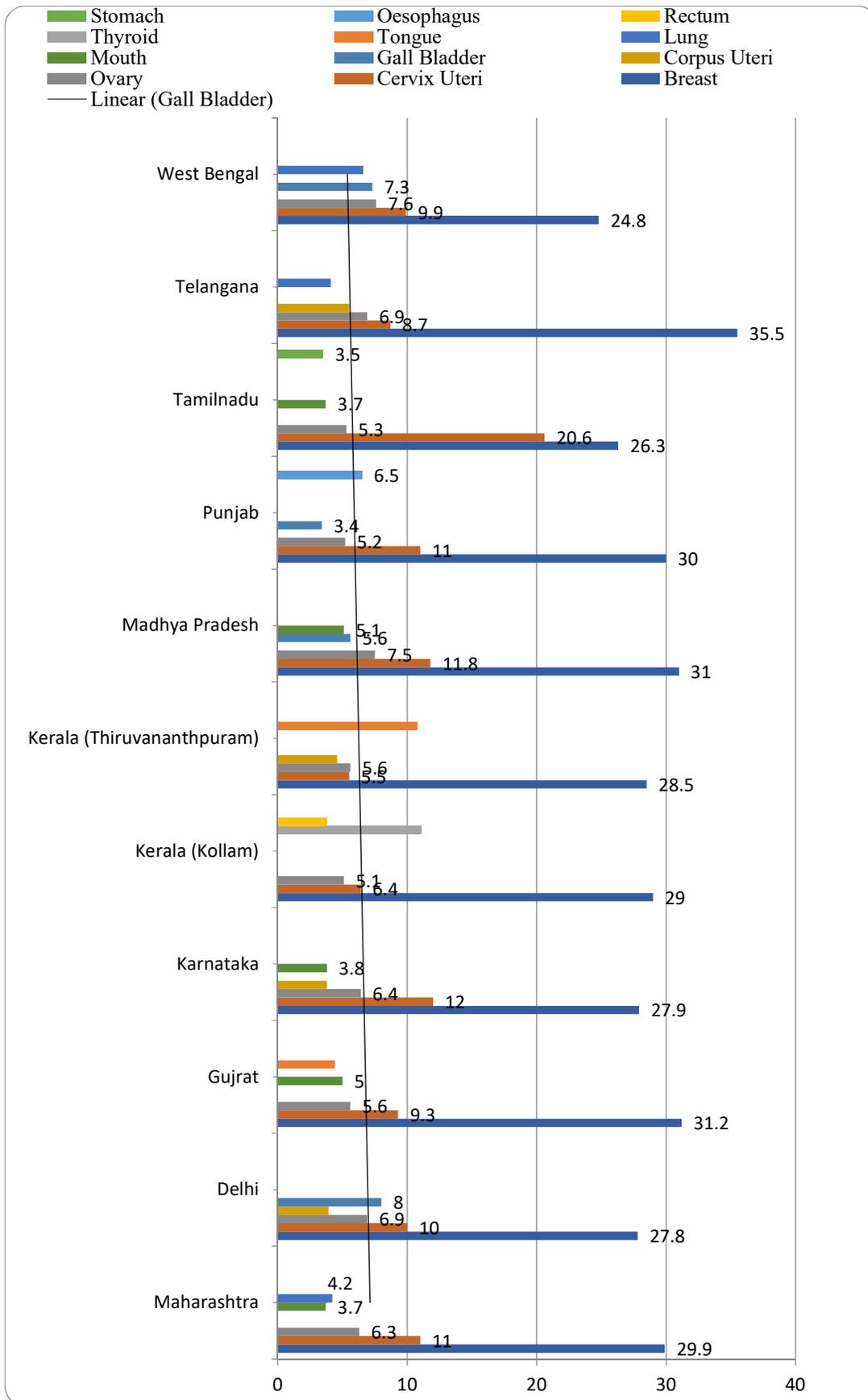


Figure 2.State wise Five Leading Sites of Cancers among females, ICMR- Bengaluru. 2021 [12].

Table 3. The projected cases of cancer in India in 2020 and in 2025 are shown in the table below [13].

Cancer Classified According To Broad Anatomical Sites	2020		2025	
	No. of Cases	(%)	No. of Cases	(%)
All Sites	13,92,179	100.0	15,69,793	100.0
Tobacco Related Cancers	3,77,830	27.1	4,27,273	27.2
Gastro Intestinal Tract	2,73,982	19.7	3,10,142	19.8
<i>Breast</i>	2,05,424	14.8	2,32,832	14.8
Lymphoid & Haematopoietic Malignancies	1,24,931	9.0	1,38,592	8.8
Cervix Uteri	75,209	5.4	85,241	5.4
Corpus Uteri and Ovary	70,400	5.1	79,765	5.1
Prostate	41,532	3.0	47,068	3.0
Central Nervous System	32,729	2.4	36,258	2.3

World Body on Breast Cases in India [14]

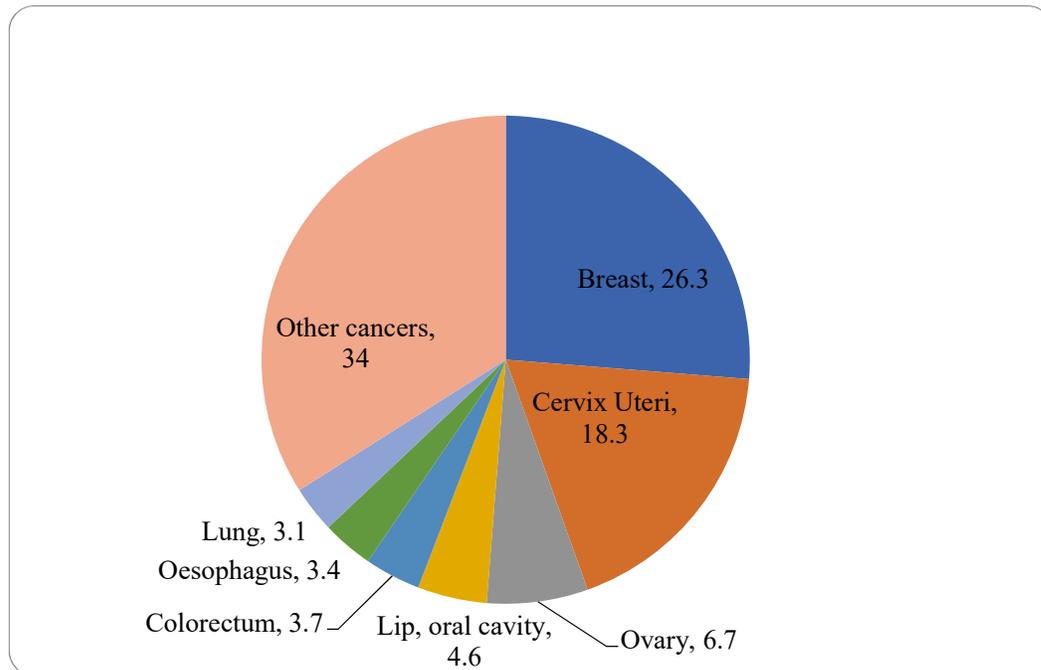


Figure 3. Estimated number of cases in 2020, India, females all ages (Total cases 6,78,383)

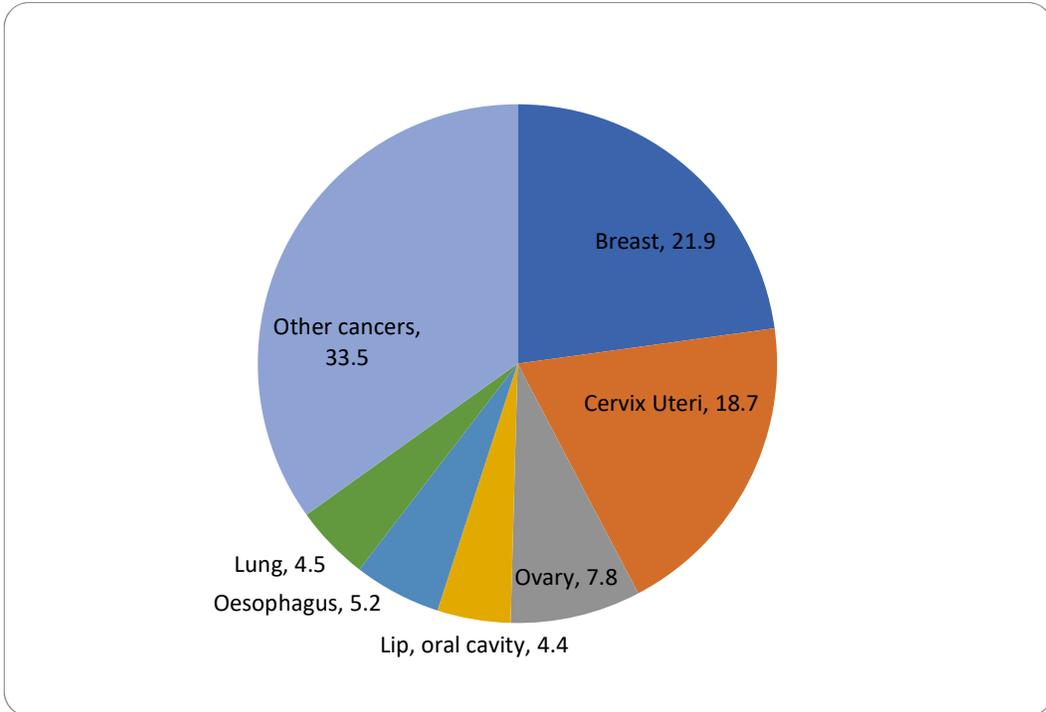


Figure 4. Estimated number of deaths in 2020, India, females all ages (Total cases 4,13,381)

Burden of Cancer Breast in World [14]

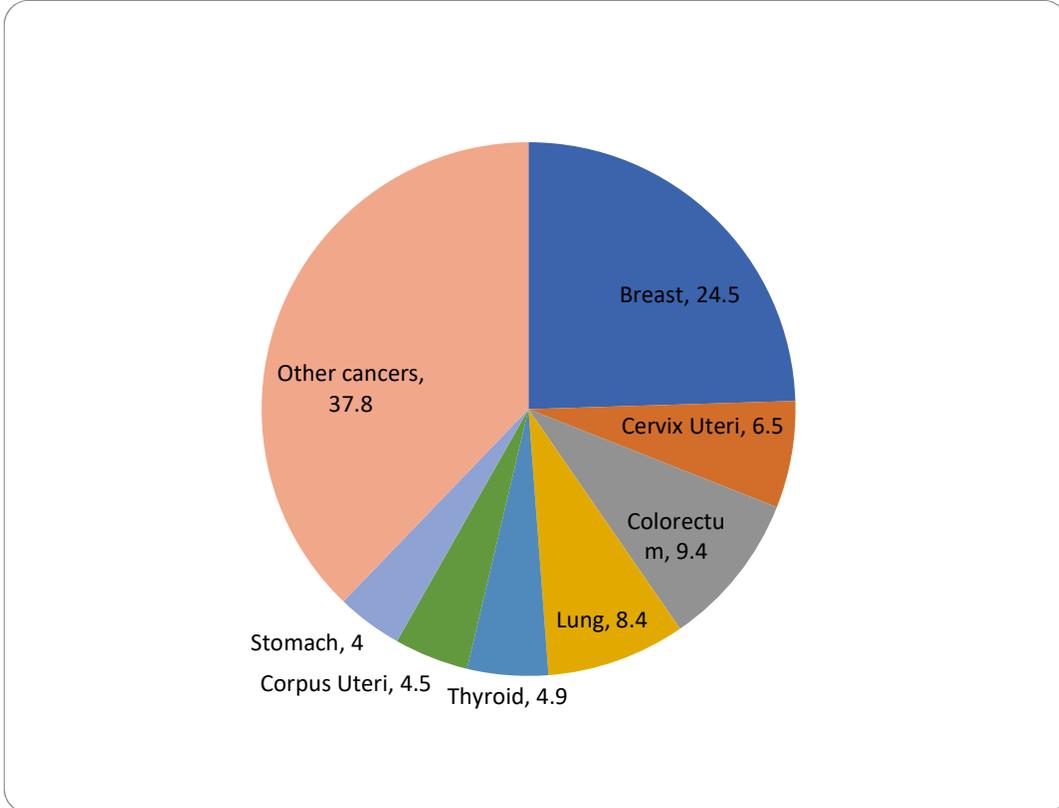


Figure 5. Estimated Worldwide number of cancer cases in 2020, females all ages (Total cases 92,27,484)

Education about screening of breast cancer among women in different states of India [15].

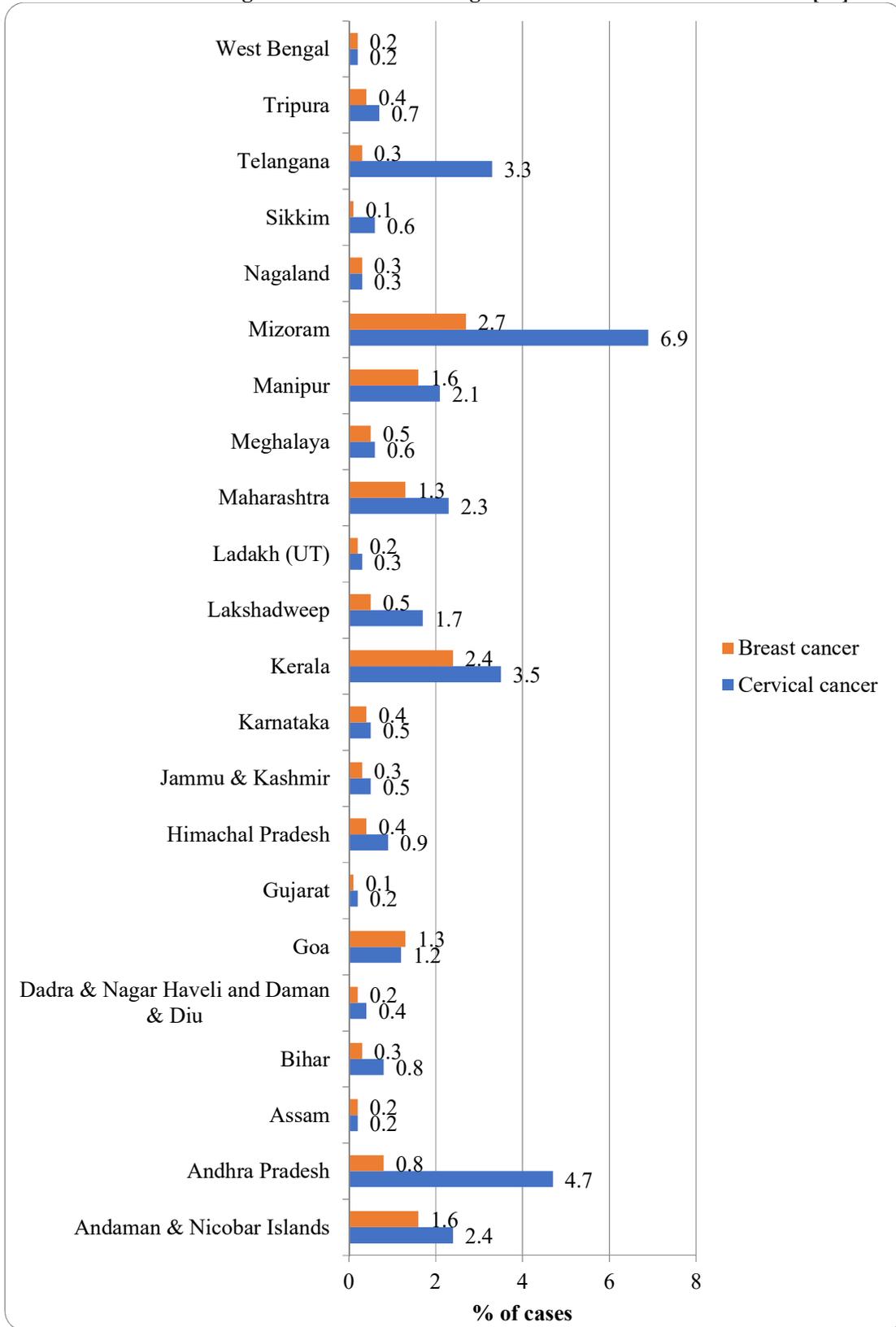


Figure 6. Screening Of Breast Cancer And Cervix Cancer, (Age 30–49 Years). Nfhs-5 (2019–20), NFHS-5 (2019–20)

Role played by gynaecologist at present in preventing oncology for breast cancer and related diseases.

1. Act as primary source of information for a women regarding the breast related diseases and complaints.
2. Taking detailed history of any breast diseases at present, in past or in family and categorising the woman at risk for developing cancer breast or not
3. Doing clinical examination of breast.
4. Teaching about “self -breast examination” and awareness about breast health to woman who come to gynaecology OPD for various gynaecological problems. We can correctly termed as “*opportunistic patient education.*”
5. Alleviate the breast diseases related anxiety in a woman.
6. Treatment of minor breast related ailments during pregnancy and lactation.
7. Discriminating grossly on the basis of history and clinical examination between probable benign or malignant disease of disease and appropriate referral.
8. Various committees of gynaecologists e.g. FOGSI involved in organising mass screening camps for breast cancer along with cervical cancer.

Why it is a Need of Hour?

To include teachings of female breast diseases and mammography in the residency teaching program of obstetrics and gynecology.

And

Inclusion MS/DNB trained gynecologist in breast surgery fellowships teaching program.

And the Answer is

Breast cancer in India is reaching at an alarming rate, so a more educated workforce is needed to solve the problem of breast disease [16].

Statistics and Scientific Facts About Breast Cancer.

Statistics

- In India breast cancer is diagnosed in 1 woman with a passage of every 4 minutes.
- In India 1 woman dies of Breast cancer, every passing 8 minutes.

- In womans lifetime out of 28 women 1 women is expected to develop breast cancer in her lifetime.
- India's population is overwhelmingly young, so the number of women diagnosed with breast cancer will continue to increase in this age group.
- India has the highest incidence of triple-negative breast cancer, the most aggressive form of breast cancer in the world.
- An estimated 1,62,468 women were newly diagnosed with breast cancer in India in 2018. In 2018, 87,090 women died of breast cancer in India. This was the second-highest number in the world for that year.
- By the year 2030, most deaths among women in India will be caused by breast cancer than any other disease.
- Compare to the United States of America, 90 percent of women with breast cancer survive five years; whereas in India, only 66 percent survive.
- About 50% of breast cancer patients first see a doctor when they are at stage 3, and 15-20% of patients see a doctor when they are at stage 4. the 10-year survival rate for a woman with breast cancer is 75% in stage 1, whereas survival decreased to 5% in stage 4 patients.
- A Comprehensive modelling study on the impact of the COVID-19 pandemic on surgery predicted that 59.7% of cancer surgeries in India were postponed during the peak of 12 weeks, with 51,100 cancer surgeries postponed. Nearly 50% of all cases are in his 25–50 year-old group.

According to authors following are some of Facts/problems and we have suggested solutions

Fact/Problem

Breast cancer is fast developing into a public health crisis, and uneasiness in society to talk about women’s breast health is exacerbating the situation even more.

Solution

Gynecologists by the very nature of their practices, are in an excellent position to find breast lesions than by any other physician. The most applicable/ pragmatic screening modality for breast cancer in Indian scenario is clinical breast examination (60%), compared to breast self-examination which is only 20% [17].

In Europe, and many parts of the world the surgically trained gynaecologist in breast diseases take part not only in detection and diagnosis as well as in the management i.e. surgical and medical treatment [1].

In India we need to apply same strategy to tackle public health crisis of breast cancer and breast related diseases.

Fact

In pregnancy, breast examination is an integral part of antenatal check-up, and is incomplete without breast examination

Solution

Obstetrics & gynaecology specialist takes this opportunity to detect previously un-noticed breast lesion by women, results in earliest intervention.

Fact

It is an established fact that Women who ever used oral contraceptives/hormone replacement therapy were found to have a slightly (7%) increased relative risk of breast cancer compared with women who never used oral contraceptives [18].

Solution

Women using oral contraceptives/hormone replacement therapy will present first to gynaecologist or breast lesion in women using oral contraceptives/hormone replacement therapy will be identified or suspected by gynaecologist than any other specialist.

Obstetrics & gynaecology specialist trained in breast diseases and surgeries will take appropriate intervention on time, in women using oral contraceptives/hormone replacement therapy.

Fact

Characteristic of hereditary breast cancer especially those associated with BRCA-1 & BRCA-2 and ovarian cancer i.e. HBOC is that these female patients are at increased risk of female breast cancer, and ovarian cancer including fallopian tube and primary peritoneal cancers. and these female patients are primarily present to gynaecologists[19].

Solution

Obstetrics & gynaecology specialist trained in breast diseases and surgeries

According to oncological consideration:-

will perform bilateral mastectomy as a primary surgical treatment of breast cancer because of elevated rate of ipsilateral and contralateral breast cancer [19].

According to preventive principles:-

Will perform Prophylactic bilateral mastectomy, prophylactic oophorectomy, and chemoprevention (e.g., tamoxifen) [19].

Fact/Problem

Breast cancer is a treatable disease, and early detection increases the chances of survival. The simplest reason women don't seek treatment early is that breast most lumps are painless.

Solution

Opportunistic patient education by gynaecologist, trained gynaecology resident in diagnostic biopsies and teachings of mammography.

Fact/problem

According to the 2020 World Cancer Report, the most effective breast cancer control intervention is early detection. Breast cancer has a low survival rate because it is detected late.

Solution

Addition of more trained personnel by training gynaecology residents in breast biopsies(incisional or excisional), guided biopsy for nonpalpable lesions, teachings of mammography and Inclusion MS/DNB trained gynecologist in breast surgery fellowships teaching program.

Fact/problem

There are cases in rural and in some urban medical facilities, Treatment of breast diseases by poorly trained medical professionals can lead to delayed diagnosis, increased costs due to complications, worse overall outcomes, and psychological distress for patients and families

Solution

Training gynaecology resident and MS/DNB trained gynaecologist will advantageous in following ways.

- a) Will add number of trained personnel in the pool of breast care provider.
- b) At present in residency teaching program of obstetrics and gynecology USG teachings is included it can be taken advantages of in, e.g. For the guided biopsy, identification of lump and it's characteristics.
- c) The breasts are part of the female reproductive system and is in the scope of obstetrics and gynaecology examination, If any suspicious looking lump is found during gynaecologic exam in woman with high risk can be biopsied without delay in the diagnosis.
- d) Early diagnosis not only improves outcomes but can also significantly reduce treatment costs.

Breast Education in India

Guidelines by Two boards of Indian medical education on breast diseases.

A) What National Medical Commission (formerly MCI) recommend about breast disease teaching in residency programme of obstetrics and gynaecology

Subject Specific Competencies:

At the end of the MS Obstetrics and Gynaecology course, students should have mastered the following: Basic knowledge of female breasts and their disorders.

B) What National Board Of Examinations (NBE) recommend.

Goal

Elementary knowledge of female Breast & its diseases.

Is There Any Breast Fellowship in India Which Train Gynaecology Speciality in Breast Surgery?

NO

Is There Any Breast Fellowship Internationally, Europe USA and Middle East Which Train Gynaecology Speciality in Breast Surgery?

YES

WORLD

INTERNATIONAL

The Senologic International Society (SIS), International School of Senology, France
SIS Fellowship in Breast Surgery.
(Reference-respective website of the institute)

Eligibility

A Board Certified General Surgeon or Gynecologist.

Europe

The Breso-European Breast Surgical Oncology Certification Jointly formed in 2019 by the following organisations [20].

1. The European Society of Surgical Oncology(ESSO)
2. The European Society of Breast Cancer Specialists (EUSOMA)
3. The Division of Breast Surgery of the European Board of Surgery of the European Union of Medical Specialists (UEMS)
4. The European School of Oncology (ESO)
5. The European Breast Cancer Research Association of Surgical Trialists (EUBREAST)
6. The Central-Eastern European Breast Cancer Surgical Consortium (CEEBCSC)
7. The Group for Reconstructive and Therapeutic Advancements (G.Re.T.A)

Deliver training in following countries

1. United Kingdom
2. France
3. Germany
4. Italy
5. Sweden
6. Switzerland
7. Poland
8. Turkey

9. Spain
10. Belgium
11. Ireland
12. Ukraine
13. Portugal
14. Hungary
15. Finland

Eligibility/Requirement:-The BRESO certification programme can be undertaken during or following completion of standard general, gynaecological or plastic surgery training

United States of America

There is variation eligibility for breast fellowship programmes in America following are centres which train the gynaecology speciality in breast surgery.

(Reference-respective website of the institutes)

1. The Massachusetts University Medical School.

Eligibility:-Board Certified general surgery or OB/GYN .

2. Texas Tech University Health Science Center breast fellowship.

Eligibility: Surgery & Obstetrics and Gynaecology.

3. Women and Infants Hospital Providence, Rhode Island.

Eligibility: Surgically-trained in general surgery, ObGyn, plastics.

4. Cedars-Sinai Non-profit hospital – Los Angeles.

Eligibility: Board-certified candidates who have completed a general surgery or obstetrics-gynaecology residency.

5. Dana-Farber Cancer Institute and Brigham and Women's Hospital, Massachusetts General Hospital.

Eligibility: Applicants must be ACGME-accredited general surgery and/or gynecology.

6. Vassar Brothers Medical Center at Nuvance Health

Eligibility: certified by the American Board of Surgery, the American Board of Obstetrics and Gynaecology.

7. University of Southern California (USC)

Eligibility: General surgery, Obstetrics/Gynecology and Plastic/Reconstructive surgery

Middle East

Tehran University of Medical Sciences
(Reference-respective website of the institute)

Department of Breast Cancer Surgery Training Program

Eligibility: Board-certified Gynecologic or General Surgeons

Advantages of inclusion procedure of breast (incisional or excisional), guided biopsy, and teachings of mammography in residency teaching program of obstetrics and gynecology

&

Inclusion gynecologist in breast surgery fellowships teaching program.

1. Will add number of trained personnel in the pool of breast care provider.
2. At present in residency teaching program of obstetrics and gynecology USG teachings is included it can be taken advantages in, e.g. For the guided biopsy, identification of lump and it's characteristics.
3. The breasts are part of the female reproductive system and is in the scope of obstetrics and gynecology examination, if any suspicious looking lump is found during gynaecologic exam in woman with high risk can be biopsied without delay in the diagnosis.
4. Early diagnosis not only improves outcomes but can also significantly reduce treatment costs.

Experience of other countries regarding breast teachings in obstetrics and gynaecology residency

- 1) A breast clinic in a Department of Obstetrics and Gynecology [21].

William H Hindle MD, Daniel R Mishell Jr MD, Raquel D Arias MD, Susana G Gonzalez MD, Barbara D Florentine MD.

- 2) The impact of a gynecology breast clinic and curriculum on the management of breast disease following residency [22].

Michelle Quaye MD, Gary Glasser MD.

- 3) A gynecology department breast clinic: the first year [23].

David Damrich MD, Gary Glasser MD, Mary Dolanmd, MPH

- 4) Fine Needle Aspiration of Palpable Breast Masses Performed in a Military Obstetrics/Gynecology Clinic: A Follow-Up Report [24]

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Conclusion

Hesitancy among Indian women to talk about Breast related diseases Is Fast Becoming a Costly Taboo in India.

Obstetricians and gynaecologists are the primary providers of women's health maintenance, and reproductive organs including of breast related education and general health screening for the woman, And now it is the need of the hour to involve the specialty of obstetrics and gynaecology in the diagnosis, management, and cancer care of breast.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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