Breast cancer Early detection
Global situation

- OVER 1 MILLION CASES ANNUALLY
- OVER 400,000 DEATHS ANNUALLY IN THE WORLD
- 4.4 MILLION WOMEN LIVING WITH THE DISEASE
Breast cancer-Sri Lankan situation

Among females

- Commonest cancer
- 2440 new cases were detected in 2010
- Age standardized incidence rate was 22.2 per 100,000 population
- 25% of newly detected cancers among women
- About 6-7 new breast cancer cases are detected daily
What causes Breast Cancer

Breast cancer is always caused by a genetic abnormality (A mistake in the genetic material)

This can be due to aging, chemical (e.g., benzene) or a physical agent (e.g., radiation), or we are born with a defective gene (e.g., mutated BRCA1 or BRCA2 gene).

Only 5 – 10 % of cancers are due to hereditary reasons

About 90% of breast cancers are due to genetic abnormalities that happen as a result of the aging process, and the “wear & tear” of life in general
Anatomy of Female Breast

The breast is a glandular organ.

It is made up of a network of mammary ducts.

Each breast has 15 - 20 mammary ducts that lead to lobes, which consist of lobules.
Breast Cancer

- An abnormal uncontrollable division of cells in the glands or ducts will result in breast cancer
Risk factors for breast cancer
Gender

• Being a female is the most important risk factor for breast cancer.
• Although men can get breast cancer, it is about 100 times more common in women.
Aging

Age: The chance of getting breast cancer goes up as a woman gets older. Over 80% of all female cancers occur among women aged 50+ years.
Some Genetic Abnormalities

• Some hereditary abnormalities in genes will responsible for 5 – 10% of breast cancers

• Eg: BRCA1, BRCA2, tp53
Family History

- If blood relatives from mother’s or father’s side having breast or ovarian cancer the risk of developing breast cancer is high (eg: mother, sister, mother’s mother, mother’s sister, father’s mother, father’s sister)
Long term exposure to Estrogen Hormone

- Estrogen is produced by the ovaries and it help to proliferate breast tissue.
Menstrual cycles

- Attain menarche before the age of 12
- Late menopause (after 55)
Women who delivered their first child after the age of 30

- During pregnancy there is a rapid growth in breast tissue, if this rapid growth occurs after 30 there might be slightly higher chance of abnormal proliferation
Women who don’t have children

- Women without children are having a bit higher risk of developing breast cancer compared to women with children
Lactation

• Women who are not breast feeding are at higher risk of breast cancer compared to women who breast fed their children. Especially if breast feeding is continued for 1 ½ - 2 years.
women who take hormone as medications

- Women who take Oral contraceptive pills containing estrogen for long period without medical advices
- Women who take Hormone Replacement Therapy for long period without medical advices
- Especially for women who are having other risk factors
Obesity

• Women who are obese especially after menopause have a slightly higher risk of developing breast cancer
Consumption of Alcohol

• Heavy consumption of alcohol slightly increase the breast cancer risk
• Exposure to a large amounts of radiation early in life, such as radiation treatment to the chest area for childhood cancer, increases the risk of breast cancer

• Very low doses of radiation (such as from X-rays and other medical imaging) do not have much, if any, impact on breast cancer risk
PERSONAL HISTORY OF BREAST CANCER OR OTHER BENIGN BREAST CONDITIONS

• Breast cancer survivors have a higher risk of getting a new breast cancer compared to women who have never had breast cancer.

• Women who had Ductal carcinoma in situ (DCIS) and some other benign breast conditions have an increased risk of breast cancer during their life time.
Clinical Features

• Lump, lumpiness or thickening in the breast or axillae
• Changes in the nipple (changes in the shape, asymmetry, inversion which are recent onset rash, wound, abnormal secretion)
• Colour change, dimpling or skin changes in any part of the breast
• Recently noticed asymmetry of breasts, changing of shape, swelling or discomfort in axillary areas
• Unusual and frequent pain in one part of the breast
Recently noticed asymmetry of breast/shape of the breast
Painless fixed nodule or thickened area
Dimpling
Rash or red areas on the breast
Erythema on the breast
Nipple discharge/ soreness or skin changes
Appearance similar to peel of an orange
Recently inverted nipple
Breast Cancer - Early Detection

Early diagnosis means a better chance of successful treatment

The three methods commonly used for early detection are

- Breast self examination
- Clinical breast examination
- Mammogram/Ultrasound
ēdunā anushirāni

ēdunā sāṇakēram

ēdunā sāṇakēram

ēdunā sāṇakēram