Summary

Breast cancer is the most frequently diagnosed cancer in women, after skin cancer, and the leading cause of cancer death among women. It occurs in both men and women, although male breast cancer is rare. Breast cancer incidence is on the rise globally, with the highest rates occurring in developed countries. Some reasons for this trend include dietary changes, decreased activity and changes in reproductive patterns. Although breast cancer incidence is on the rise, breast cancer mortality has been stagnating.

The exact cause of breast cancer is not clearly known. Studies have identified many risk factors, which increase the chance of developing breast cancer. The most important risk factors are sex, age, personal history of breast cancer, family history of breast cancer, early menarche, nuliparity, late menopause, atypical hyperplasia, obesity and radiation to the chest. The common donominator for many of these risk factors is their effect on the level and duration of exposure to endogenous estrogen.

Breast cancer, like all cancers, develops because of defects in DNA. The cancer-causing DNA defects can be inherited, or may develop during adult life. Inherited DNA defects account for only 5-10 % of breast cancers and they are mainly associated with mutations in BRCA-1,2 genes. The majority of breast cancers are due to DNA damage that develops during adult life.

Early breast cancer has no symptoms. Often the first symptom of breast cancer is the discovery of a breast lump. Other possible symptoms include changes in the skin overlying the breast, nipple inversion, discharge from the nipple, and pain. Metastatic breast cancer symptoms depend on the location of metastasis.

Diagnosis is based on a clinical breast examination, mamography and ultrasound. A definitive diagnosis of breast cancer can only be made by a biopsy with microscopic examination of a tissue sample. Several factors are used to determine management strategy and prognosis, they include age, staging, grading, whether the tumor is hormone receptor positive or negative and histopathology.

The primary prevention of breast cancer focuses on reduceing the risks of developing breast cancer. It is based on lifestyle changes, such as - weight reduction, increased exercise, and improved diet. Nowadays, the most important strategy in decreasing mortality is secondary prevention. The target of secondary prevention is the early detection of breast cancer. It includes regular mammographic screening, clinical breast examination and breast-self examination.