

Objectives:

At the end of this lecture, the student should be able to:

- a. Understands that 5 to 10% of breast cancers are related to specific inherited gene mutations.
- b. Is aware of the factors which affect the prognosis of breast cancer like the morphology of the tumour and the status of steroid hormone receptors including oestrogen and progesterone.
- c. Understand the function and prognostic significance of the HER2 gene on chromosome 17.
- d. Is aware that Herceptin is the drug used against HER2 positive breast tumour cells.

Contents:

1. Incidence and prevalence of breast cancer among women.
2. Role of specific inherited genetic mutations in familial breast cancer with special emphasis on BRCA1 and BRCA2.
3. Traditional morphologic prognostic factors of breast cancer and role of hormone receptors assessment.
4. Treatment of breast cancer by therapeutic hormonal manipulations: Tamoxifen.
5. Role of molecular prognostic and predictive factors with specific emphasis on HER2 gene on chromosome 17.
6. The Herceptin molecule as a therapeutic factor against tumour cells with HER2 over expression.