Breast cancer / lecture 1

(malignant breast neoplasm) is cancer originating from breast tissue, most commonly from the inner lining of milk ducts or the lobules that supply the ducts with milk. Cancers originating from ducts are known as ductal carcinomas; those originating from lobules are known as lobular carcinomas.

The size, stage, rate of growth, and other characteristics of the tumor determine the kinds of treatment. Treatment may include surgery, drugs (hormonal therapy and chemotherapy), radiation and/or immunotherapy. Surgical removal of the tumor provides the single largest benefit, with surgery alone being capable of producing a cure in many cases.

To somewhat increase the likelihood of long-term disease-free survival, several chemotherapy regimens are commonly given in addition to surgery. Most forms of chemotherapy kill cells that are dividing rapidly anywhere in the body, and as a result cause temporary hair loss and digestive disturbances. Radiation may be added to kill any cancer cells in the breast that were missed by the surgery, which usually extends survival somewhat, although radiation exposure to the heart may cause heart failure in the future. Some breast cancers are sensitive to hormones such as estrogen and/or progesterone, which makes it possible to treat them by blocking the effects of these hormones.

Prognosis and survival rate varies greatly depending on cancer type and staging. With best treatment and dependent on staging, 5-year relative survival varies from 98% to 23, with an overall survival rate of 85%.

Worldwide, breast cancer comprises 22.9% of all non-melanoma skin cancers in women. In 2008, breast cancer caused 458,503 deaths worldwide (13.7% of cancer deaths in women). Breast cancer is more than 100 times more common in women than breast cancer in men, although males tend to have poorer outcomes due to delays in diagnosis.

Cancer of the Breast / Histopathology
Malignant glands.

What features of anaplasia are present?

- Pleomorphism (cells of varying size and shape)
- The nuclei of the tumor cells are larger and darker than normal cells, including the ones in the connective tissue of the tumor;
- The glands are irregular