

Glossary ?Oncology: Oncology is the study of tumors ?Hyperplasia: increase in the number of cells of a tissue ?Tumor: Abnormal mass of tissue produced by progressive, unlimited, purposeless proliferation of cells. Another definition: development of secondary malignant implants away from the primary tumor. Characteristics of Benign and Malignant Neoplasm

Character	Benign	Malignant
Shape	Capsulated	Not capsulated
Size	Usually smaller than malignant	Rapid increase in size
Degree of differentiation	Well-differentiated	Cell show variable loss of differentiation
Mode of growth	Grows by expansion, does not infiltrate	Grows at the periphery, infiltrate and destroy the surrounding tissue
Rate of growth	Generally slow	Grow rapidly
Metastasis	Absent	Present
Recurrence	Not recurrent	Recurrent
Tissue destruction	No tissue destruction	Extensive tissue destruction
Effect	Insignificant effect except in vital organ	Dangerous effect

Benign tumor complications ??

Carcinogenesis: process of transforming normal cells into malignant cells ?

Metastasis: spread of cancer cells from the primary tumor to distant sites ?

Thrombocytopenia: decrease in the number of circulating platelets; associated with the potential for bleeding ?

Alopecia: hair loss

Classification of tumor ? This process occurs through four stages: initiation, promotion, progression and metastasis

- 1 – The initiation process involves carcinogens (factors that contribute the development of cancer such as chemicals, physical factors) that alter the genetic structure of DNA within cells. Dietary substances associated with an increased cancer risk include fats, alcohol, salt-cured or smoked meats and a high caloric dietary intake. Presence or absence of distant metastases
- 2 – Staging of cancer (Clinical staging): The clinical staging classification system determines the extent of the disease process of cancer by stages:
 - 1 – During promotion, repeated exposure to carcinogens transforms the genetic information so that cells begin to produce mutant (malformed) cell population. Viruses: viruses play a significant role in weakening immunologic defenses against neoplasms e.g. papilloma virus, and hepatitis B virus. Abnormal chromosomal patterns have been associated with extra chromosomes, too few chromosomes, or translocated chromosomes. e.g. Leukemia, meningiomas. The risk for cancer increases with long-term ingestion of carcinogens or co-carcinogens or chronic absence of proactive substances in the diet.
 - Hormonal Agents Disturbances in hormonal balance either by the body's own (endogenous) hormone production or by administration of (exogenous) hormones.
- 3 – Progression: This stage is characterized by increased growth rate of the tumor, increased invasiveness. Obesity is associated with endometrial cancer and possibly postmenopausal breast cancers. – Oral contraceptives and prolonged estrogen replacement therapy. Presence or absence of lymph node involvement and its extent ?
- 4 – Malignant change: adenoma of colon----adenocarcinoma. ?????????? 2. 4. 5. 6. 8. ??????