

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 Staging of cancer (Clinical staging): The clinical staging classification system determines the extent of the disease process of cancer by stages: ?2– 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. Malignant: A tumor which always invades the surrounding tissues and give metastasis. Approximately 5% to 10% of cancers of adulthood and childhood display a familial predisposition. – E.g. Cancers of the breast, prostate, and uterus are thought to depend on endogenous hormonal levels for growth. Benign: not cancerous; benign tumors may grow but are unable to spread to other areas ?Obstruction of a hollow organ: bronchial adenoma causing bronchus obstruction. Rupture of cyst neoplasm: cyst adenoma of ovary. Overall, the incidence of cancer is higher in men than in women and higher in industrialized sectors and nations. 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 ?Malignant change: adenoma of ??????. colon----adenocarcinoma. ??????????2. ?4. ?5.6.8