



SNS COLLEGE OF NURSING

SARAVANAMPATTI, COIMBATORE-35



**DEPARTMENT OF MEDICAL &
SURGICAL NURSING**

**COURSE NAME : BSC (NURSING) III
YEAR**

SUBJECT : MSN II

UNIT VI: ONCOLOGY

TOPIC : MALIGNANT PROCESS



INTRODUCTION





Oncology: Nursing Management in Cancer Care



Cancer

- A disease process that begins when an abnormal cell is transformed by the genetic mutation of cellular DNA
- The abnormal cells have invasive characteristics and infiltrate other tissues. This phenomenon is **metastasis**.
- Cancer cells are described as malignant. These cells demonstrate uncontrolled growth that does not follow physiologic demand.



Malignant Process



- Cell proliferation: uncontrolled growth, with the ability to metastasize and destroy tissue and cause death
- Cell characteristics: presence of tumor-specific antigens, altered shape, structure, and metabolism
- Metastasis:
 - Lymphatic spread
 - Hematogenous spread
 - Angiogenesis
- Carcinogenesis



Carcinogenic Agents and Factors



- Viruses and bacteria
- Physical factors: sunlight, radiation, chronic irritation
- Chemical agents: tobacco, asbestos
- Genetic and familial factors
- Diet
- Hormones
- Role of the immune system



Early Warning Signs for Cancer

- Cancer 7 early warning signs (CAUTION)
 - **C**hange in bowel or bladder habits.
 - **A** sore that does not heal.
 - **U**nusual bleeding or discharge.
 - **T**hickening or lump in breast or scrotum.
 - **I**ndigestion or difficulty in swallowing
 - **O**bvious change in a mole or wart.
 - **N**agging cough or hoarseness.



Primary and Secondary Prevention

- Primary prevention is concerned with reducing cancer risk in healthy people.
- Secondary prevention involves detection and screening to achieve early diagnosis and intervention.
- There is now great emphasis on the primary and secondary prevention of cancer.



Primary Prevention

- Avoid known carcinogens.
- Lifestyle and dietary changes to reduce cancer risk
- Public and patient education
- See **Chart 16-2.**



Secondary Prevention

- Identification of patients at high cancer risk
- Cancer screening
 - Self-breast exam
 - Self-testicular exam
 - Screening colonoscopy
 - Pap test
- Public and patient education



Diagnosis of Cancer

- Diagnostic Tests
See **Table 16-4**
- Tumor staging and grading
See **Chart 16-3**
TNM classification



Staging: determine size of tumor and the existence of metastasis

- TNM classification used:

T → extent of primary tumor

N → lymph node involvement

M → extent of metastasis

• **Grading:** classification of tumor cells

- Used to define the type of tissue from which the tumor cell originate, and the degree to which the tumor cells retain the functional Ch.Ch of the tissue of origin

- Obtained through biopsy or surgical excision

- Grading from I- IV

- I : well differentiated tumors, closely resemble the tissue of origin in structure and function

- IV: poorly differentiated tumors, not clearly resemble the tissue of origin in structure or function



T = tumor size

e.g. 0 – No evidence of primary tumor

- T I, II, III & IV – number allocated to size of primary tumor.
- I represents smallest size, ranging up to stage IV.

N = Regional lymph node involvement

- N0: tumor cells absent from regional [lymph nodes](#)
- N1: tumour cells spread to closest or small number of regional lymph nodes
- N2: tumor cells spread to an extent between N1 and N3.
- N3: tumor cells spread to most distant or numerous regional lymph nodes

M = metastasis

- M 0 – no evidence of distant metastatic spread.
- M I – evidence of distant metastatic spread.



Cancer classification according to tissue type

- Epithelial as (adenocarcinoma)
- Connective tissue as in bone (osteosarcoma)
- Hematologic (monocytic leukemia)
- Lymphatic (lymphomas)



Cancer Management

- Cure (complete eradication of malignant disease)
- Control (prolonged survival)
- Palliation (relief of symptoms associated with the disease especially pain)



Surgical Treatment

- Diagnostic surgery
- Biopsy: excisional, needle, incisional
- Tumor removal: wide excision, local excision
- Prophylactic surgery
- Reconstructive surgery



As a primary treatment

- The goal is to remove the entire tumor and any involved surrounding tissue
- 2 approach:
 - 1 local excision : used when mass is small, it includes removal of the mass and a small margin of normal tissue.
 - 2 wide (radical) excision : considered when tumor can be removed completely and the chance of cure or control is good, include removal of tumor, L.N, adjacent and surrounding tissue of high risk for tumor spread



Diagnostic Surgery

- Used to obtain biopsy for analysis
- From the tumor or from L.N near the suspicious tumor
- 3 types:
 - 1- Excisional:
 - Used for easily accessible tumor of the skin, breast, URT, upper and lower GIT
 - Entire tumor with surrounding marginal tissue is removed
 - It helps in ↓ the chance of disseminating cancer cell through surrounding tissue
 - Performed through endoscopy



INCISIONAL BIOPSY



- Performed when tumor mass is too large to be removed
- Wedge of tissue from the tumor is removed for analysis
- Performed through endoscopy 3- needle biopsy:
 - Performed to obtain sample from suspicious mass that are easily accessible as growth in breast, thyroid, lung, liver and kidney
 - Fast, inexpensive, easy to perform, required local anesthesia



INCISIONAL BIOPSY

2- Incisional biopsy:

- Performed when tumor mass is too large to be removed
- Wedge of tissue from the tumor is removed for analysis
- Performed through endoscopy

3- needle biopsy:

- Performed to obtain sample from suspicious mass that are easily accessible as growth in breast, thyroid, lung, liver and kidney
- Fast, inexpensive, easy to perform, required local anesthesia



Palliative surgery

- Used when cure is not possible
- Goal: to make pt comfortable as possible and to promote a satisfying and productive life
- Performed to relieve complications as pain, ulceration, bleeding, effusion
- E.g colostomy → when there is bowel obstruction
pleural tube placement → for pleural effusion
- Reconstructive surgery:
 - Followed curative or radical surgery
 - Performed to improve function, and done in one operation or in stages
 - May indicated for breast, head, neck and skin cancer.



REFERENCES

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