



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT: ALLIED HEALTH SCIENCES
COURSE NAME: ORTHOPEDICS

Topic:Secondary tumor



Introduction



Definition

A secondary tumor, also known as a metastasis, is a cancer that has spread from its original location in the body. The original cancer is called the primary tumor

Formation of secondary tumor.

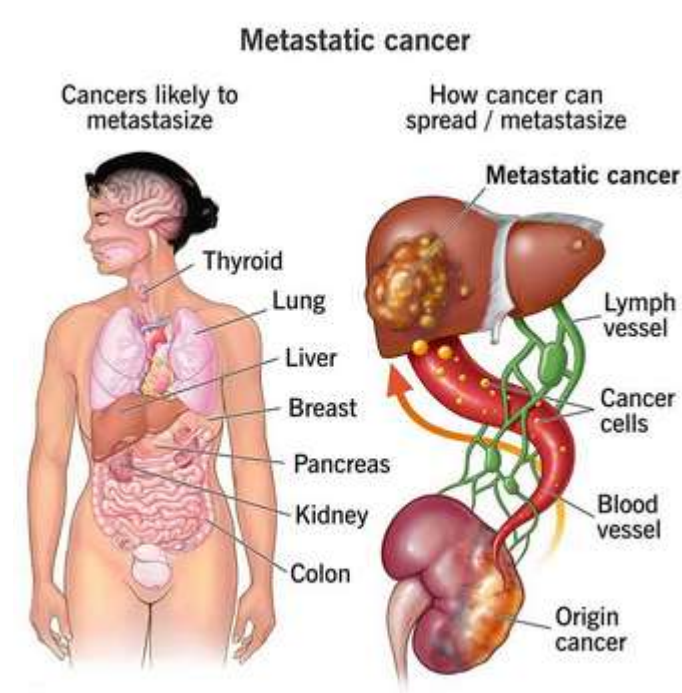
Cancer cells break away from the primary tumor

The cancer cells travel through the bloodstream or lymphatic system to another part of the body

The cancer cells grow and form a new tumor in the new location

Examples of secondary tumors

Secondary brain tumors, Secondary breast cancer, Secondary liver cancer, Secondary lung cancer, and Secondary cancer in the lymph nodes.





Etiology



Secondary tumors can be caused by a number of factors, including
genetic factors
lifestyle choices and
treatments for the original cancer.

Genetic factors

Genetic mutations that increase the risk of developing certain cancers

Hereditary cancer syndromes that increase the risk of developing multiple cancers

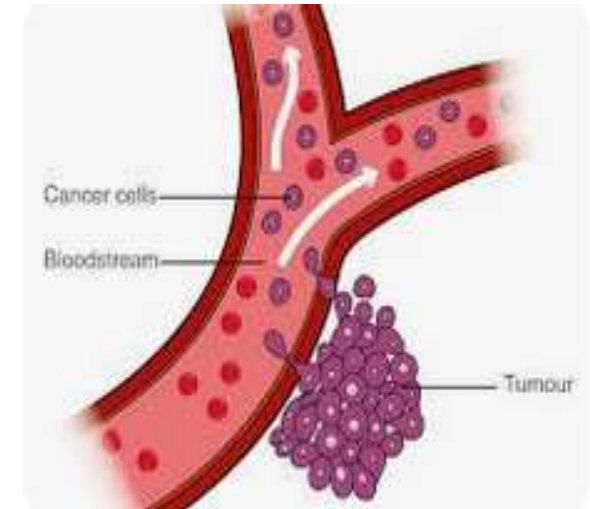
Lifestyle changes

Smoking

Alcohol use

Sun exposure and

Diet





RISK FACTORS

Smoking, Alcohol, Exercise, Sun exposure, Diet, Genetic predisposition and Polymorphisms for metabolizing enzymes.



Risk factors & Complications

COMPLICATIONS

Bone pain

Cancer that spreads to the bones is called secondary bone cancer.

Brain damage

Cancer that spreads to the brain can cause difficulty walking, dizziness, and loss of balance.

Cardiac arrhythmias

Complications of cardiac toxicity include cardiac arrhythmias, pulmonary embolism, and deep vein thrombosis.

Nerve plexus involvement

Metastasis to the brachial plexus can cause severe pain, sensory abnormalities, and weakness in the affected arm.

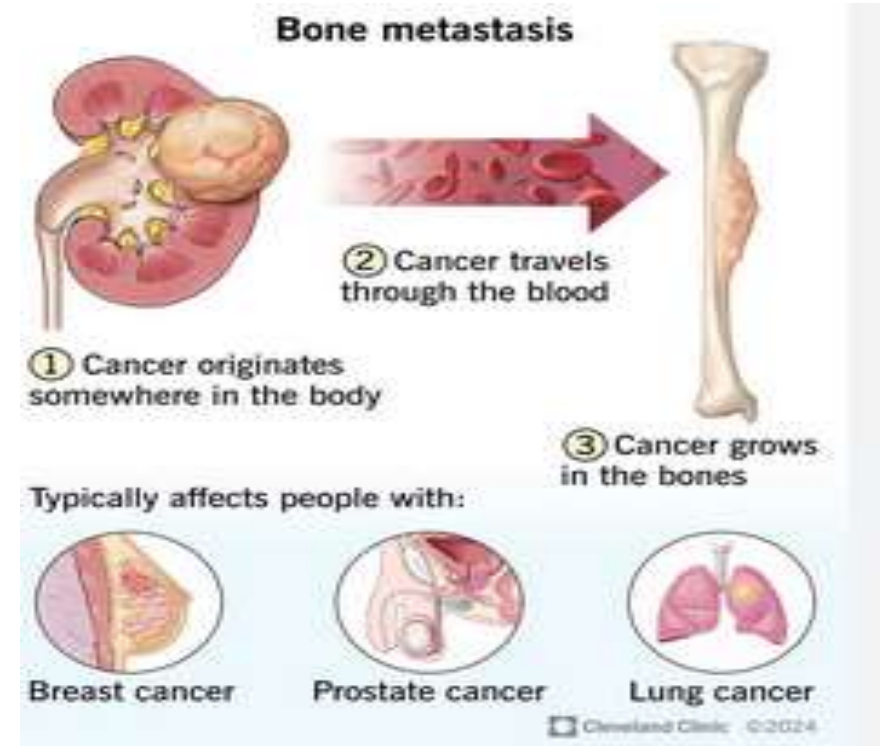
Signs & Symptoms

Bone metastases

Bone pain, often a dull ache that worsens with movement
Fractures, even from minor injuries
Weakness in the arms or legs
Back pain
Urinary incontinence

Brain metastases

Headaches
Dizziness
Seizures, which can be short-term periods of abnormal brain activity
Speech problems
Vision issues
Confusion
Difficulty walking





Signs & Symptoms



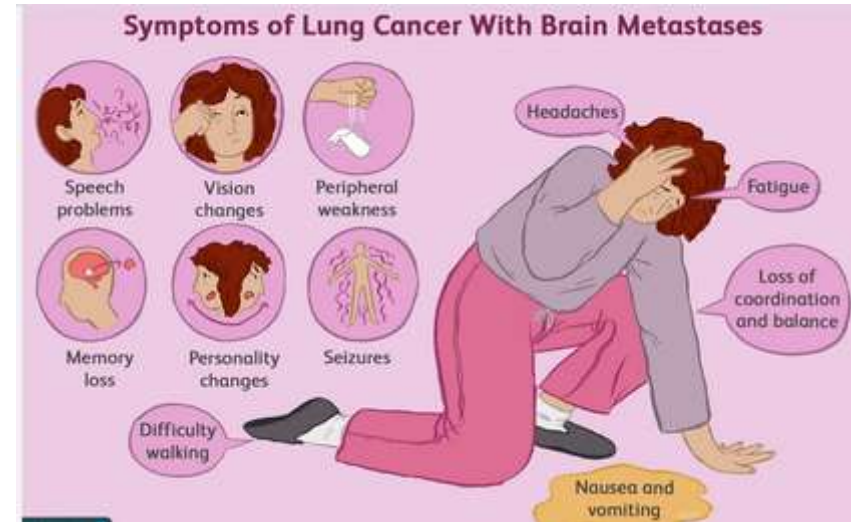
Lung metastases Shortness of breath, Coughing, Chest pain, Coughing up blood, and Continuous chest infections.

Liver metastases Bloating, Swollen belly, Decreased appetite, and Jaundice.

Lymph node metastases

- Swollen or hard lymph nodes
- Swelling in the arm or leg due to lymphoedema
- Blood clots in the arm or leg

Other symptoms unexplained weight loss, extreme fatigue, and low levels of blood cells.





Assessment 1



- 1. What is secondary tumor
- 2. Mention the Risk factors
- 3. Etiological factor



Diagnosis



History collection

Physical examination

Biopsy

Blood tests.

Bone scans.

CT (computed tomography) scans.

MRI (magnetic resonance imaging) scans.

PET (positron emission tomography) scans.

Tumor marker-based tests.

Ultrasound.

X-rays.



Assessment 2



- Role play about symptoms-1



Treatment



- Chemotherapy.
- Hormone therapy.
- Immunotherapy.
- Radiation therapy.
- Targeted therapy.



Therapies



Secondary tumor treatment depends on the type of tumor, its location, and other factors. Treatments include surgery, radiotherapy, chemotherapy, and other therapies.

Surgery

Can be used to remove a single or small number of secondary brain tumors

Can be used to remove secondary lung tumors that started in the bone, bowel, or soft tissue sarcomas

Radiotherapy

Uses high energy x-rays to kill cancer cells

Can be used to control cancer growth and symptoms

Can be external or internal

Chemotherapy Can be used to treat tumors.

Other therapies

Combination or sequential therapies can target resistance pathways

Antibody-drug conjugates, nanoparticle delivery systems, or bispecific antibodies can deliver higher doses of biologically active drug more specifically to the tumor



Quiz about

- 1. Surgical managements
- 2. Therapies

Assessment-3

