

Lung Cancer : Case Reports on Nursing Care

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Abstract

Nurses are the vital persons in health care of the patients in the aspects of health care such as preventive, curative and rehabilitative. In hospitalized patients' the approach of nursing care is important for the patient to feel they are taken care by health professionals who can allay their all ailments. Thus nursing case reports will give understanding the approach of nursing care.

Keywords: Lung Cancer; Case Reports; Hospitalized Patient; Nursing Care.

Lung Cancer is a Lead Cause of Death among all the Cancer

A comparative study is done on the patients admitted in AIIMS, Rishikesh for their disease

pattern, cause prognosis and management. Among all the patient, 3 patients are selected randomly for study.

Biodemographic Data

Identification data	Patient I	Patient II	Patient III
Name	Mrs. Baishakhi devi	Ram Chandra	Bano
Age	55 year	60 year	60 year
Gender	Female	Male	Female
IPD No.	444107/01/16	438159/10/15	4445135/01/16
Address	Dehradun	Dhoiwala, rishikesh	Rishikesh
Education	5 th	10 th	-
Occupation	House wife	Army retired	House wife
Date of admission	05/01/16	26/10/15	11/01/16

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RECEIVED ON 30.01.2017, ACCEPTED ON 09.02.2017

Definition

A number of benign and malignant tumors occurs in the lungs but the primary lung cancer commonly termed "bronchogenic" the term.

Bronchogenic Carcinoma is commonly used for cancer of the lungs which includes carcinomas

arising from the respiratory epithelium living the bronchi, bronchioles & alveoli.

Incidence

Lung cancer is the leading cancer killer among

men and woman in the united state, with almost 161,000 deaths estimated in 2012, approximately 226,000 new cases of lung cancer are diagnosed annually: 14% of new cancers for men and women involve the lung cancer.

At all over survival sate of 5-years in 13%

Classification

Book picture	Patient picture		
	Patient AX	Patient BY	Patient CZ
<p>There are 5 Main histologic types of lung cancer:-</p> <ol style="list-style-type: none"> I. Squamous cell or epidemoid carcinoma. II. Small cell carcinoma III. Adnocarcinoma (including bronchioalveolar carcinoma) IV. Large cell carcinoma V. Combined squamous cell carnima and adenocacinoma (adenosquamous carcinoma) <p>As per reposts on international data for the last 25 years, while there has been decline in the incidence of small cell carcinoma of the lung has risen and has surpased squamous cell carcinoma as the most frequent histologic subtype of lung cancer</p> <p>However for therapeutic purpose, bronchogenic carcinoma can be classified into 3 groups:-</p> <ol style="list-style-type: none"> I. Small cell carcinomas, SCC (20-25%) II. Non-small cell carcinomas, NSCC (70-75%) (includes squamous cell carcinoma, adenocarinoma& large cell) III. Combined 1 mixed patterns (5-10%) 	Adenocarcinoma of lungs	Squamous cell carcinoma of lung	carcinoma of lung

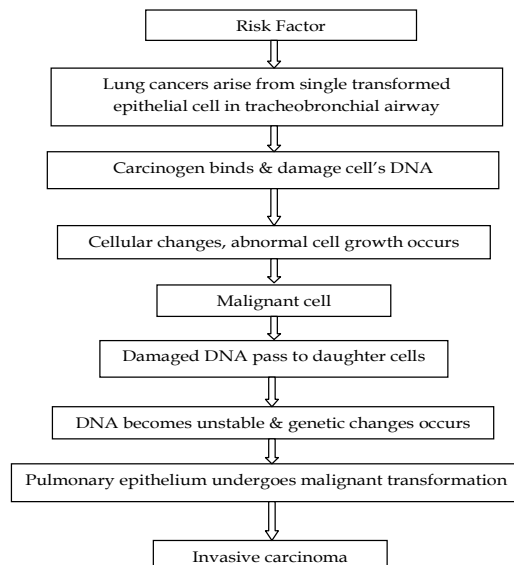
Etiology

Book picture	Patient picture		
	Patient AX	Patient BY	Patient CZ
<p>The high incidence of lung cancer is associated with a number of etiologic factors , most important of which is "cigarette smoking"</p> <ol style="list-style-type: none"> I. Smoking:- the most important factor for high incidence of all forms of broncholgenic carcinoma is tobacco smoking. About 80 % of the lung cancer occurs in active smokes. A number of evidence support the positive relationship of lung. Cancer with tobacco smoking. II. Histologic alterations:- the association of tobacco smoking is strongest for sqnomous cell. Carcinoma and small cell carcinoma of the lung. More then 90% of smokers have requential epithelial. Changes in the respiratory tract in the form of sqnamous metaplasia, dysplasia and carcinoma in situ. III. Other factor:- although smoking is the dominant etiologic factor in lung cancer, 15% cases of lung cancer occur in non-related to hormonal women probably other factors <ol style="list-style-type: none"> 1. Almospheric pollution 2. Occupational causes 3. Dietary factor 4. Chronic scaring 	Adenocarcinoma of lungs	Squamous cell carcinoma of lung	carcinoma of lung

Clinical Manifestation

Book picture	Patient AX	Patient picture Patient BY	Patient CZ
<p>Symptoms of lung cancer are quite variable and result from local effects, effects due to occlusion of a bronchus, direct and distant metastases, direct and distant metastases, and paraneoplastic syndrome</p> <ol style="list-style-type: none"> Local symptoms:- cough, chest pain dyspnea and haemoptysis Bronchial obstructive symptoms:- occlusion of a branches may result in bronchopneumonia, lung abscess and bronchiectosis in the lung tissue distal to the site of obstruction and cause their attendant symptom like fever, productive lough, plural effusion and weight loss. Symptoms due to metastases:- distant spread may produce gauging features and sometimes these one the first manifestation of lung cancer. These include: superior vena caual syndrome, painful bony lesions, paralysis of recunent newe and other neurototic manifestation resulting from brain metastases. Paraneoplastic syndromes:-a number of praneoplastic syndromes are associated with lung cancer these include the following: <ol style="list-style-type: none"> Ectopic hormone production:- <ol style="list-style-type: none"> ACTH producing cushing’s syndrome ADH, inducing hyponatraemia Parathormone, causing hypercalcarnia Calcition, producing hypocalcaemia Gonadotropins, causing gynoceiomastia Serotonin, associated with carcinoid syndrome Othersystemic manifestations:- there include the following:- <ol style="list-style-type: none"> Neuromuscular Skeletal Coetaneous Cardiovascular Hematologic 	<ul style="list-style-type: none"> Cough X 2 months Generalised weakness with weight less X 2 months Breathlessness Chest pain Scanty sputum Lsed appetite Based sleep Orthopnea 	<ul style="list-style-type: none"> Cough x 3 month Breathlerness Dyspnea Chest pain Scanty spulum 	<ul style="list-style-type: none"> Cough with expectorants since 6-7 months Shortness of breath Dyspnea Loss of apctite Fever Generalised weakness Chest pain

Pathogenesis



Diagnosis

Book picture	Patient AX	Patient picture Patient BY	Patient CZ
<ul style="list-style-type: none"> ➤ A chest x- ray is performed to search for pulmonary density, a solitary pulmonary nodule, stelectasis and infection ➤ Ct scans of the chest are used to identify small nodules ➤ Sputum cytology is rarely used to make a diagnosis of lung cancer. ➤ Fiberoptic bronchoscopy is used to study the trachobronchial tree and allow for brushing, washing, biopsies of suspicious area. ➤ Fine-needle aspiration may be performed under CT guidance to aspirate cells from a suspicious area ➤ A variety of scans may be used to assess for metastases of the cancer. There may include bone scans, abdominal scans, positron emission tomography scan, liver ultrasound ➤ CT scan of the brain. Magnetic resonance imaging and other neurologic diagnostic procedure are used to detect central nervous system metastases ➤ Pulmonary function tests, arterial blood gas analysis, V/Q scans, exercise testing are also done. 	<ul style="list-style-type: none"> • FNAC REPORT poorly differentiated carcinoma small all type • CT Scan 7x7x8 cm marts in right lung • all the haematological, biochemical reports are normal. 	<ul style="list-style-type: none"> • All the haematological biochemical reports are normal • No FANC & any scan 	<ul style="list-style-type: none"> • FANC REPORT the cytological features are suggestive of a non- small cell carcinoma • Haematological biochemistry and urine tests are normal

Management

Book picture	Patient AX	Patient picture Patient BY	Patient CZ
<p>Medical management</p> <p>The objective of management is to provide a cure treatment depends on the cell type, stage of the disease and patient's physiologic status. In general treatment may involve surgery radiation, chemotherapy or a combination of these</p> <p>Surgical management</p> <ul style="list-style-type: none"> • Surgical management is prepared method types of lung resection are:- • Lobectomy:- single lobe of lung is removed • Bilobectomy :- two lobes of the lung are removed • Sleeve resection:- cancerous lobes in removed and a segment of main bronchus is resected • Pneumonectomy:- removal of entire lung • Segmentectomy:- a segment of the lung is removed • Wedge resection:- removal of small pie-shaped area of the segment. • Chest wall resection:- removal of cancerous lung tissue. <p>Radiation therapy</p> <p>Radiation therapy may offer care in a small percentage of patient it is useful in controlling neoplasm that cannot be surgically resected but are responsive to radiation. The radio isotopes are used to deliver the radiation teletherapy and brachytherapy is the method of delivery</p>	<ul style="list-style-type: none"> • no surgical and radiations therapy given to patient • chemotherapy is started on patient with medication:- • syp:- re was /2 tsp/ oral /TDS • tab:- doxoryl/goomg / oral/ BD • Ing. :- cisplatin/ yong + 500 ml NS/ IV/ 2 Hoursly • Inj:- permiterexed / 780mg + 6.5 ml NS /IV/OD 	<ul style="list-style-type: none"> • No surgical and radiation therapy done on patient • Chemotherapy is started on patient with medication:- • Syp:- reewas /2Tsp/ oral TDS • Tab. Doxoxyl/ yuong / oral /BD • Duolin /1amp /TDS/ inhalation • Inj. Ifosfamide /1.2 g/ m2/OD/ IV 	<ul style="list-style-type: none"> • No surgical & radiation therapy done on patient • Chemotherapy is started on patient with medication:- • Tab. Metulux XR/ 25mg /oral/ OD • Tab. Folvite/5mg/ OD/oral • Neurochon fost/ BD • TRD cordin/ BD • Tab. Pan/40mg/ OD • Cap. Becasule/ 2mg/OD • Tab. Cliza/0.5 mg/ OD (HS)

Surgical Management

The types of lung surgery are:

- Wedge resection (segmentectomy). The removal of a small wedge-shaped piece of lung that contains the lung cancer and a margin of healthy tissue around the cancer. This is likely to be done after lobectomy. The risk of lung cancer recurring is higher with this method.
- Lobectomy. The right lung has three lobes and the left lung has two lobes. A lobectomy removes the entire lobe of lung that contains the cancer. The lungs can function with the lobes that remain.
- Pneumonectomy. A pneumonectomy removal of entire lung that contains the lung cancer. A pneumonectomy is done only when needed, because it will greatly reduce overall lung function.
- Sleeve resection. The removal of the cancerous part of the bronchus and reconnects the healthy ends. The bronchus is the part of the trachea (windpipe) that branches off into each side of the lungs.

For applying the Nursing process for the lung cancer some priority Nursing diagnosis has explained :

Nursing Care Plan

1. Impaired gas exchange related to hypoventilation as evidenced by dyspnoea, restlessness changes in mutation hypoxemia, hypercapnia, cyanosis

Nursing Interventions

- Assess and record respiratory rate, depth and character of respirations
- Observe for use of accessory muscles, pursed lip breathing, and changes in skin or mucous membrane color, pallor and cyanosis.
- Auscultate and reward lung for air movement and abnormal breath sounds
- Observe the patient for restlessness and tachypnea.
- Encourage the patient to take bed rest limit activities
- Maintain patient airway by positioning, suctioning and proper airway.
- Change position periodically by providing high

fowler's or supine position

- Encourage in deep breathing or pursed lip breathing
- Check the patient of chest take of drainage system, if in silet observe and reward the changes (amount or type) of fluids of chest take drainage
- Observe presence or degree of bubbling in water seal chamber
- Administer supplemental oxygen air nasal canola, partial repeating mask or high humidity face mask.
- Assist with and encourage the use of spirometry
- Send and record periodically ABG analysis and hemoglobin levels.

2. Ineffective Airway Clearance related to Restricted chest movement/pain as evidenced by Changes in rate/depth of respiration, Abnormal breath sounds, Ineffective cough and Dyspnea.

Nursing interventions

Auscultate and record the chest for character of breath sounds and presence of secretions.

Assist patient and instruct in effective deep breathing and coughing with upright position (sitting).

Observe amount and character of sputum or aspirated secretions.

Report the changes as indicated.

Suction the patient as needed, and encourage to begin deep breathing and coughing as soon as possible.

Encourage oral fluid intake (at least 2500 mL/day) within cardiac tolerance. And maintain I/O chart.

Assess for pain or discomfort and medicate on a routine basis and before breathing exercises.

Assist with incentive spirometer, postural drainage and percussion as indicated.

Use humidified oxygen and/or ultrasonic nebulizer

Provide additional fluids via IV as indicated.

Administer bronchodilators, expectorants, and/or analgesics as indicated.

3. Acute Pain related to Cancer invasion of pleura, chest wall as evidenced by Verbal reports of discomfort, Guarding of affected area, Distraction behaviors, e.g., restlessness, Narrowed focus (withdrawal) and Changes in BP, heart/respiratory rate.

Nursing interventions

Determine pain characteristics: continuous, aching, stabbing, burning. Have patient rate intensity on a 0-10 scale.

Assess patient's verbal and nonverbal pain cues.

Encourage verbalization of feelings about the pain.

Evaluate effectiveness of pain control.

Provide comfort measures: frequent changes of position, back rubs, support with pillows. Encourage use of relaxation techniques, visualization, guided imagery, and appropriate diversional activities.

Schedule rest periods, provide quiet environment.

Assist with self-care activities, breathing and/or arm exercises, and ambulation.

Administer intermittent analgesics routinely as indicated, especially 45-60 min before respiratory treatments, deep-breathing or coughing exercises.

4. Anxiety Perceived threat of death as evidenced by Withdrawal, Apprehension, Anger, Increased pain, sympathetic stimulation and Expressions of denial, shock, guilt, insomnia.

Nursing interventions

Evaluate patient level of understanding of diagnosis.

Acknowledge reality of patient's fears or concerns and encourage expression of feelings.

Provide opportunity for questions and answer patient and relatives honestly.

Accept patient's denial of the situation and do not reinforce.

Record behaviors indicative of beginning acceptance and/or use of effective strategies to deal with situation.

Involve patient and relatives in care planning.

Provide for patient's physical comfort.

Other nursing need /problem to be taken care

1. Anticipatory Grieving
2. Situational Low Self-Esteem
3. Impaired Nutrition: Less Than Body Requirements
4. Risk for Fluid Volume Deficit
5. Fatigue
6. Risk for Infection
7. Risk for impaired Oral Mucous Membranes
8. Risk for Impaired Skin Integrity
9. Risk for Constipation/Diarrhea
10. Risk for impaired Sexuality Patterns
11. Risk for impaired Family Process

Conclusion

These case report of patient with lung cancer will helpful for the the nurses, nurse educators and student nurses to understand the nursing care of the lung cancer. By doing the case report this will provide every nurses to provide insight in taking care of the patient.

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