Symptom Palliation In Lung Cancer

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There is an end to cure; there is no end to care.
Issues in lung cancer

➢ One third of all cancer-related deaths are due to lung cancer.

➢ Approximately 40% of patients with NSCLC present at an advanced stage, including patients with metastatic disease and those with locally advanced disease with malignant pleural or pericardial effusion.

➢ The median survival of patients with untreated metastatic NSCLC is only 4-5 months, with a 1 year survival of only 10%.

➢ In SCLC, around 70% is be seen in extensive stage, median survival is around 1 year.
Disease management

- Palliative RT
- Palliative Chemotherapy
- BSC
Symptom control

- **Evaluation:** Cause and factors
- **Explanation:** To the patient
- **Management:** Individualized treatment
- **Monitoring**
- **Attention to detail:** no unwarranted assumptions
Pain

Actually, the pain is just nature's way of keeping you humble!
Causes of pain

- Pain in lung is caused by:
  - The cancer – primary or metastasis
  - Anticancer treatment
  - General illness & debility associated with disease
  - Concurrent disorders
  - Psychological
Mechanism of pain

- Nociceptive – tissue distortion or injury.
- Neuropathic – nerve compression or injury.
  - Superficial burning/stinging pain
  - Spontaneous stabbing/shooting pain
  - Deep ache.
Pain

- Pleural Pain
  - Cancer invading pleura
  - Malignant pleural effusion
  - Pneumothorax
  - Side effect of pleurodesis.

- Chest Wall Pain
  - Local chest wall invasion by tumour
  - Vertebral metastasis.
  - Rib erosions
  - Metastasis
Pain

- Deep Visceral Pain
  - Intrathoracic spread
  - Hepatic metastasis.

- Neuropathic Pain
  - Intercostal nerve infiltration in vertebral erosion.
  - Brachial plexus infiltration in Pancoast’s tumour.
  - Radiculopathy or spinal cord compression
Pain Assessment scale

- Visual Analogue Scale
- Numerical Rating Scale
- Verbal Descriptor Scale

In relation to this chart, how would you describe your pain?
Pain management

➢ Aim at progressive pain relief :-
   ➢ relief at night.
   ➢ relief at rest during the day.
   ➢ relief on movement (not always completely possible)

➢ Analgesics should be given until the anti-cancer treatment is effective – several weeks.

➢ Modification of patient’s life style – physiotherapist.
Pain Management

- The WHO Ladder:
  - Effective in relieving pain for 90% of cancer patients.
  - 75% of terminally ill patients.

W.H.O. PAIN LADDER

- **STRONG OPIOIDS**
  - Morphine, Oxycodone, Diamorphine, Fentanyl

- **WEAK OPIOIDS**
  - Tramadol, Codeine, Dihydrocodeine

- **SIMPLE ANALGESICS**
  - Paracetamol, Aspirin, NSAIDS
Neuropathic pain

- Corticosteroids
  - Dexamethasone 4-8 mg OD.

- Tricyclic Antidepressants
  - Amitriptyline – 25-75 mg. HS.

- Anticonvulsants
  - Sodium Valproate – 200 –1000 mg.HS.
  - Carbamazepine – 200-1200 mg./day

- Antiarryhythmic
  - Mexiletine – 50-300 mg TDS.
Should we use Strong opioids !!!!

➢ Morphine does not cause respiratory depression.
  ➢ Pain is physiological antagonist to the central depressant effect of morphine.
  ➢ Psychological dependence (addiction) does not occur if morphine is used correctly.
➢ There is no maximum dose for morphine.
➢ Morphine should be given with a nonopioid.
➢ Starting dose 10-12 mg q4h – DD at night.
➢ If pain relief not satisfactory, increase by 50% of starting dose.
➢ Morphine and other strong opioids exist to be given
➢ Use laxatives, antiemetic, SOS prescription.
Dyspnea
Dyspnea

- Breathlessness or dyspnea is the unpleasant awareness of difficulty in breathing

- Subjective

- Involves
  - perception of breathlessness
  - reaction of the patient

- Often intermittent - precipitated by exertion

- Associated with some degree of anxiety, which in turn will make the breathlessness worse (panic attack)
Dyspnea Cycle

INCREASED RESPIRATORY RATE → PANIC

INCREASED ANXIETY

BREATHLESSNESS

LACK OF UNDERSTANDING + FEAR OF DEATH
Dyspnea In Lung Cancer

Etiology

- Central causes
  - Lymph nodes
  - Growth itself
- Peripheral
  - Volume loss
  - Pleural effusion

- Associated factor
  - COPD
  - Cardiac failure
  - Bronchiectasis
  - ILD
Management

- Correct the correctable
  - Infection
  - COPD
  - Pleural effusion

- Non-drug treatment
  - Explore the anxiety of breathlessness
  - Assure that in itself it is not damaging or life threatening
  - Emphasise that patient will not die during an acute exacerbation
  - Help the patient to adjust to loss of abilities & roles
# Dyspnea Drug treatment

<table>
<thead>
<tr>
<th>Category</th>
<th>Treatment</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronchodilators</td>
<td>Salbutamol increases voluntary muscle strength</td>
<td></td>
</tr>
<tr>
<td>Morphine</td>
<td>Reduces the respiratory drive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Already on morphine for pain: Increase 30-50%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Not on morphine 5-6mg q4-6hrs starting dose</td>
<td></td>
</tr>
<tr>
<td>Diazepam</td>
<td>Anxious</td>
<td></td>
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<tr>
<td></td>
<td>- 5-10mg stat &amp; nocte; 2-5mg in the very elderly</td>
<td></td>
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<tr>
<td></td>
<td>- Reduce dose after several days if the patient becomes drowsy</td>
<td></td>
</tr>
<tr>
<td>Oxygen</td>
<td>Should be discouraged unless dyspnea at rest</td>
<td></td>
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<tr>
<td></td>
<td>- Several minutes before &amp; after physical activity</td>
<td></td>
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<tr>
<td></td>
<td>- 4L/min via nasal prongs</td>
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</tbody>
</table>
Cough
Cough

- Cough is the physiological reflex employed to expel particles & excess mucus from the trachea & main bronchus.

- Irritation of other structures associated with the cough reflex:
  - pleura, pericardium, diaphragm

- Types of cough:
  - Wet cough & patient able to cough effectively
  - Wet cough but patient too weak to cough effectively
  - Dry cough, i.e. nonproductive of sputum
Cough

➢ **Etiology**
  - Cancer related
  - Treatment related
  - Comorbidity
Management

- **General symptomatic measures**
  - Avoid smoke, fumes
  - Atmospheric humidification
  - Nurse patient in position of least discomfort

- **Non drug measures**
  - Advise how to cough effectively
  - Postural drainage
  - Physiotherapy

- **Dry cough**
  - Soothing agents
  - Steam inhalation
  - Antitussives

- **With sputum**
  - Culture sensitivity guided antibiotics
Cough

➢ Protussive
  ▶ Topical mucolytics
    ➢ Nebulised saline
    ➢ Carbol
  ▶ Irritant mucolytics
    ➢ Potassium iodide
  ▶ Chemical mucolytics
    ➢ acetylcysteine

➢ Antitussives
  ▶ Peripheral
    ➢ Linctus
  ▶ Central
    ➢ Opioids

➢ Cough syrups
  ▶ Demulcent: Soothing agent
  ▶ Reducing pharyngeal sensitivity
Superior Vena Cava Syndrome
SVC syndrome

Definition

• The *clinical manifestation* of obstruction of the superior vena cava, with severe reduction in venous return from the head, neck, and upper extremities
Pathophysiology

• SVC obstruction:
  ➢ External compression
  ➢ Invasion
  ➢ Internal blockage: Thrombosis

• Causes: Lung cancer specific
  ➢ Primary Lung lesion: Upper lobe, Central
  ➢ LN metastasis: Mediastinal
SVCO - Symptoms

➢ Dyspnea
➢ Orthopnea
➢ Distension
➢ Facial/Neck swelling
➢ Dilated vessels
➢ Hoarseness of voice

➢ Headache
➢ Nasal congestion
➢ Hemoptysis
➢ Dizziness
➢ Syncope
Work Up

- Imaging: CECT Thorax, MRI, PET CT
- Biopsy and IHC: SCLC vs NSCLC vs others (lymphoma, germ cell tumor)
- Routine blood investigation
- ABG
- Serum Electrolytes
Prognostic Factors

• Dependent on
  • Histology: M/C with NSCLC, relatively more common with SCLC
  • Response to RT/Chemotherapy

  ❖ Small Cell lung cancer will shrink quickly (and often only temporarily)

  ❖ Non-Small lung cancer – relatively chemo and radioresistant
Treatment

• Secure airway, propped up position

• Steroids: Reducing tumor and airway edema
  • [8-24 mg dexamethasone loading f/b 4-6 mg q 6-8hr]

• Chemo – SCLC > NSCLC
  • Agent of choice

• Radiotherapy – NSCLC>SCLC
  • Dose, fractionation

• Interventional – Endovascular stent
SVCO Radiation plan
Summary

• Superior Vena Cava Obstruction
  – Symptoms are usually mild
  – Less of an emergency (but urgent tx needed)
  – Image and make diagnosis
  – +/- Anticoagulate, steroids and refer for definitive treatment
Thank You