

## Dyspnoea in cancer patients and palliative care management

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**Abstract:** Dyspnoea is an extremely distressing symptom for lung cancer patients. It can completely dominate a patient's life, causing physical disability, loss of independence and dignity and lowered self-esteem with associated psychological distress.

Both pharmacological and non-pharmacological management are an important part of patients with the distressing symptom such as dyspnea or shortness of breath for terminally ill cancer patients and by which health professional intends to maximize a patient's functional ability.

Integration of palliative care and therapeutic management can deliver an improved management to cancer patients and their family members.

**Keywords:** Dyspnoea or breathlessness. Pharmacological interventions. Non-pharmacological interventions. Management of related problem e.g. Anxiety.

### INTRODUCTION.

The word dyspnoea is derived from the Greek language and can be defined literally as difficulty in breathing (Ahmedzai, 1993).

Twycross (1997) stated that; 'The sensation of breathlessness is not fully understood. The basic fault is an imbalance between demand for ventilation and the ability of the respiratory system to respond'.

'Imagine running in a blind panic for someone's life and then somebody puts 70 kg weight on the chest whilst person is trying to catch his/her breathe'.

Dyspnoea is describing as the unpleasant sensation associated with breathing (Davis, 1997). It is a symptom, not a sign, it is subjective, usually frightening, and can be present even if the breathing appears normal. Since dyspnoea is a subjective experience its severity does not correlate with the pathology.

Dyspnoea is an extremely distressing symptom for lung cancer patients. It can completely dominate a patient's life, causing physical disability, loss of independence and dignity, and lowered self-esteem with associated psychological distress.

#### *Causes of dyspnoea in palliative care:*

Often a combination and the underscored are the most common in palliative care.

#### **A. Airway obstruction**

##### **Tracheal:**

- Tumour of larynx, thyroid, mediastinum or bronchus.
- Tracheo-oesophageal fistula.

##### **Bronchial:**

- Tumour
- Chronic bronchitis

- Acute infection e.g. acute bronchitis, laryngitis, etc
- Bronchospasm: bronchitis, asthma, carcinoid syndrome.

#### **B. Reduction in functional lung tissue**

- Surgical resection: lobectomy, pneumonectomy.
- Tumour: atelectasis, lymphangitis, multiple metastases.
- Fibrosis: pre-existing, radiation, chemotherapy.
- Pleural effusion.
- Infection.
- Pulmonary embolism.
- Chronic emphysema.
- Haemorrhage.

#### **C. Impaired ventilatory movement**

- Chest wall weakness, motor impairment, general debility.
- Pericardial effusion, constrictive pericarditis, phrenic nerve lesion.
- Elevated diaphragm: ascites, hepatomegaly, phrenic nerve lesion.

#### **D. Cardiovascular**

- Congestive cardiac failure, cardiomyopathy, cardiac arrhythmia.
- Pericardial effusion, constrictive pericarditis, superior vena cave obstruction.
- Shock, haemorrhage, septicemia.

#### **E. Anaemia**

#### **F. Anxiety**

*Before initiate the treatment for a patient to control dyspnoea,*

*we have to assess the person properly. There should be a care plan for patients with breathing difficulties.*

**Goal for palliative care management for cancer patients with dyspnoea**

- For the patient to say that their breathlessness has eased.
- For the patient to be less distressed by breathlessness.
- Management of related problems such as anxiety, oral problems and pressure or
- bed sores should be prevented.

The usual history and examination will likely elucidate most of the above causes but there several points that specific evaluation:

**Severity:**

- How far can you walk?
- Can you walk upstairs?
- How hard is it to shower yourself?

**Also, to assess the severity of breathlessness we can use 'Breathlessness assessment Scale/Distress scale'.**

- No breathlessness.
- On climbing stairs or hills.
- On walking more than 10 yards.
- On walking less than 10 yards.
- On minimal activities- e.g. dressing, washing, etc.
- When sitting on a chair or bed.
- At all times and feels as if they are fighting for each breath.

**Onset:**

A recent sudden deterioration may indicate a reversible cause, e.g. infection or pleural effusion.

**Anxiety:**

Most patients will experience feelings ranging from anxiety to sheer terror with dyspnoea. 'It is a feeling like someone choking to death', 'I am suffocating', 'I am gasping and this is my last breath'.

**Management or to control dyspnoea in terminally ill cancer patients:**

**Nonpharmacological management:**

- A calm environment.
- A cool draft (fan, open window, air-conditioned).
- Breathing exercises (physiotherapy referral).
- Relaxation / lifestyle modification (occupational therapy referral)
- Complementary therapy (massage, acupuncture, self-hypnosis, etc)
- Not being left alone.
- Distraction such as music.

- Massage (aromatic oil)
- Some patients may prefer to be in a sitting position on a soft chair or even prefer to sleep on that position.

**Pharmacological management:**

**1. Bronchodilators:**

Bronchodilators can be used to control the wheeze, but sometimes it is not helpful in severe dyspnoea.

**2. Morphine:**

- Can ease the sensation of dyspnoea.
- If the patient is not on morphine, we can initiate 1-2 mg orally four hourly as
- Starting dose.
- If the patient is on morphine already then, we may increase the dose by at least 30% to be of benefit.
- We can use morphine before starting any exertional work like one dose of morphine 15 minutes before shower can be helpful.
- Nebulised morphine has no value to control dyspnoea.

**3. Oxygen:**

- Usually 4 litres/minute via nasal prongs (less claustrophobic than a mask also patient can eat, drink, talk with that, etc.)
- It can be used the pre-emptively example before the shower.
- Can be used in acute severe dyspnoea.
- The oxygen we should use only when there is hypoxia.
- Little oxygen sometimes can give psychological relief, but we should be careful about the dependency on oxygen as well.

**4. Steroids:**

- It is useful in lymphangitis carcinomatosa.
- It has got a slight bronchodilator effect.

Dyspnoea due to secondary metastasis can be control effectively with a high dose of steroids e.g. (Dexamethasone 18-24 mg daily in divided dose, reducing to the lowest dose that will control symptom) by reducing the surrounding oedema of the tumour and then increase the surface area available for gas exchange.

Radiotherapy is very helpful to control dyspnoea due to discrete metastasis in the lung.

Chemotherapy is useful in small cell carcinoma of the lung also use in breast cancer.

**5. Anxiolytics:**

Lorazepam, Diazepam, Midazolam, etc can be used to reduce the anxiety state of the patient.

Diazepam 2-5 mg at night.

Alprazolam .25-1 mg S/L prn.

Diazepam are not suitable for some patients (those previously

on long-term Benzodiazepines), Phenothiazine such as Chlorpromazine (50-100 mg 4-8 hourly, PR)

#### **6. Antibiotics:**

Sometimes it is necessary to prescribe an appropriate antibiotic to the patient for suspected superinfection by bacteria.

#### **Conclusion:**

Dyspnoea due to cancer itself in the lungs or secondary metastasis into the lungs are each prognosis is poor. Therefore, the goal of the health cares team to manage this kind of patient basically to improve the quality of life and to help the patient to die with dignity.

Both pharmacological and non-pharmacological management is equally important to control the dyspnoea and improve the quality of life.

A lot of research still going on how to improve the quality of life with lung cancer patients, especially to control the distressing symptom of dyspnoea.

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