Non-Pain Symptom Management

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Objectives

- Review common non-pain symptoms experienced by patients at the end of life
- Discuss the typical causes of these symptoms
- Describe assessment pearls
- Review pharmacotherapy & other treatment options

Non-Pain Symptoms

- Anorexia and cachexia
- Dyspnea
- Nausea and vomiting
- Constipation
- Bowel obstruction
- Fatigue

Introduction

- Non-pain symptoms are common in patients with advanced illness
- Symptom management at the end of life frequently focuses on pain
- Non-pain symptoms can be distressing and a significant source of discomfort

Introduction

- Trained to identify symptoms as they relate to disease processes
- Palliative care emphasizes patient comfort and quality of life
- When cure is not possible, symptom management may become the goal of care

Initial Approach

- Perform a focused history and physical examination
- Determine any underlying pathophysiology that can guide the treatment plan
- Assess the impact
  - Functional status & quality of life
  - Family & caregivers

Initial Approach

- Review the goals of care
- Consider if diagnostic studies will help determine an intervention
- Develop & implement a management plan

Initial Approach

- The management of symptoms requires cohesive interdisciplinary teamwork
- Close collaboration between team members is essential for optimal care

“Double Effect”

- Desired effects
  - Relief of distressing physical symptoms
  - Decreased suffering
- Undesired effects
  - Loss of the ability to relate to others
  - Loss of consciousness
  - Possible shortening life

Case

Mr. Wilson is a 75 year old man with a history of end-stage heart disease who comes in for a routine visit.

You notice that he’s lost 12 pounds in the last two months.

He says he has little energy and just doesn’t feel hungry most of the time.

Anorexia

- Definition: Loss of appetite associated with a decrease in food intake
- Common complication of advanced cancer, HIV and other terminal illnesses
- Multiple causes including endogenous cytokines, metabolic disturbances, and infections as well as other reversible physical & psychosocial problems

Physical Conditions Affecting Appetite

- Pain
- Nausea & vomiting
- Diarrhea & constipation
- Oral candidiasis
- Depression
- Urinary retention
- Dry mouth

Physical Conditions Affecting Appetite

- Loss or alteration of taste
- Fatigue – too tired to eat
- Treatment related due to radiation, chemotherapy or medications
- Acid-related problems (gastritis, ulcers)
- Intra-abdominal malignancy/metastases

Dysphagia

- Poor-fitting dentures
- Poor dental hygiene
- Taste disorder
- Weakness
- Neuromuscular problems
- Oral candidiasis
- Viral infection
- Reflux esophagitis
- Mucositis/mouth ulcers
- Dry mouth from radiation, drugs, or systemic dehydration

Psychosocial Issues & Appetite

- Anorexia is often distressing to family members and caregivers
- Lack of appetite and weight loss may be perceived as “failure” and a possible source of suffering
- Educate the patient, family & caregivers
  - loss of appetite is part of the disease process
  - the patient is not uncomfortable

Improving Appetite

- Treat comorbid conditions
- Eliminate foods with odors and tastes that are disagreeable to the patient
- Eliminate dietary restrictions
- Choose favorite foods
- Add high calorie beverages
- Increase calorie content of foods (e.g. add butter to bread, gravy to potatoes)

Appetite Stimulants

- megestrol (Megace®)
  - 400 – 800 mg PO QD
- corticosteroids e.g.dexamethasone
  - 2 – 10 mg PO or SQ QD or BID
- dronabinol (Marinol®)
  - 2.5 mg PO BID, titrate up to 20 mg/day
- oxandrolone (Oxandrin®)
  - 2.5 – 5 mg PO BID - QID

Artificial Nutrition

- Has not been shown to prolong life in terminally ill patients
- Is associated with a high incidence of aspiration pneumonia, use of restraints, and symptoms such as nausea, rattling respiratory secretions
- Does not increase the comfort of terminally ill patients

Case

Ms. Smith is a 48 year old woman with a history of metastatic lung cancer and recurrent, left-sided pleural effusion who comes to the ER for worsening shortness of breath over the last two days.

She has had two thoracenteses in the past six weeks; the last one was complicated by a pneumothorax.

Case

She tells you that she doesn’t want any more procedures.

With tears in her eyes she asks you if you can do anything to make her feel better?

Dyspnea

- Definition = an uncomfortable awareness of breathing or “breathlessness”
- Respiratory effort and dyspnea are not the same
- May be associated anxiety, fear, panic and even terror

Unreliable Measures of Breathlessness

- respiratory rate
- pulse oximetry reading
- arterial blood gas
- family's perception
- health professionals' perception

Dyspnea: Patient Descriptions

- Cannot get enough air in
- Smothering feeling in the chest
- Tightness in the chest
- Fatigue in the chest
- Choking sensation
- Feeling a need to gasp or pant
- Extreme fear of suffocation

Causes of Dyspnea

- Tumor infiltration
- Hypoxemia
- Airway obstruction
- Bronchospasm
- Fluid overload
- Pneumonia
- Pulmonary embolus
- Pleural effusions
- CHF
- Pulmonary hypertension
- Superior vena cava syndrome
- Neuromuscular
- Metabolic disturbances
- Thick secretions
- Anemia
- Anxiety
- Interpersonal issues

General Treatment for Dyspnea

- Evaluate & treat reversible causes
- Provide a draft – use fans, open windows
- Consider a trial of supplemental oxygen
- Elevate head of the bed and/or have the patient sit forward and upright

General Treatment for Dyspnea

- Address anxiety and provide reassurance
- Adjuvant measures – music, relaxation, prayer
- Treat respiratory secretions
- Consider the use of opioids

Treating Respiratory Secretions

- Loosen with nebulized saline

- Dry with anticholinergic agents
  - hyoscyamine (Levsin®)
    - 0.125 mg PO or SL Q 8 hours
  - scopolamine patch (Transderm Scop®)
    - 1 – 3 patches TOP Q 3 days
  - glycopyrrolate (Robinul®)
    - 1 – 2 mg PO BID – TID
    - 0.1 – 0.2 mg SC/IV/IM Q4-8 hours

Treating Specific Causes of Dyspnea

- Bronchospasm – albuterol, steroids
- Volume overload – diuretics
- Pleural effusions – thoracentesis, pleurodesis
- Respiratory secretions – nebulized saline, glycopyrrolate, scopolamine patch

Treating Specific Causes of Dyspnea

- Lymphangitic spread of malignancy
- End-stage pulmonary disease
- Terminal, central or upper airway obstruction
- For each these diagnoses, consider sedation with an agent such as a benzodiazepine, thiopental, or propofol

Opioids for Dyspnea

- Mild dyspnea – Vicoden, Tylenol #3
- Severe dyspnea – oxycodone, morphine syrup, hydromorphone
- Increase dose by 30-50% every 4-12 hours until the patient is comfortable

Opioids for Dyspnea

- Morphine
  - IV: 1 – 4 mg q 15 min – 4 hours
  - SQ: 1 – 4 mg q 30 min – 4 hours
  - PO: 5 – 15 mg, pill or liquid, q 1 – 4 hours
  - Rectal: 5 – 15 mg, suppository, q 1- 4 hours, may need to be compounded

(Source: ELNEC, 2000)

Constipation

On nursing home rounds you stop in to see Mr. Jones -- a 62 year old man with advanced Parkinson's Disease. He is happy to see you and denies any complaints.

On exam, his abdomen is mildly distended but non-tender with good bowel sounds.

On review of his chart & from talking with the charge nurse, you find out that he hasn't had a bowel movement in one week & he is only eating 25-40% of his meals.

Are you constipated?

- Establish what the patient considers to be his or her normal bowel regimen

- Questions to ask:
  - Change in frequency?
  - Change in consistency?
  - Abdominal discomfort?
  - Any nausea or vomiting?
  - Change in appetite or oral intake?

Multiple Causes

- Medications (opioids, CCB)
- Decreased mobility
- Ileus
- Mechanical obstruction
- Dehydration
- Metabolic abnormalities
- Spinal cord compression
- Autonomic dysfunction

Consequences of Constipation

- Abdominal pain
- Bloating
- Nausea & vomiting
- Urinary retention
- Overflow incontinence
- Tenesmus
- Fecal impaction
- Bowel obstruction

Management of Constipation

- Treat reversible causes
- Encourage fluid intake as tolerated
- Increase activity level if able
- Consider dietary fiber

Management of Constipation

- Stimulant laxatives
  - prune juice, senna, bisacodyl
- Osmotic laxatives
  - lactulose, sorbitol, MOM, magnesium citrate
- Detergent laxatives (stool softener)
  - docusate (Colace®) 100 – 240 mg PO BID

Management of Constipation

- Prokinetic agents
  - metoclopramide
- Lubricant stimulants
  - glycerin suppositories, mineral oil
- Large volume enemas
  - warm water, soap suds

Case

Mrs. Lee is a 36 year old woman with advanced ovarian cancer and peritoneal carcinomatosis.

She calls you complaining of increased nausea over the last few days with intermittent vomiting. She feels too sick to come to the office.

“Can you give me something?” she asks.

Pathophysiology of Vomiting

The vomiting center in the midbrain coordinates the vomiting reflex & receives input from:

- Cerebral cortex
- Inner ear (vestibular apparatus)
- Chemoreceptor trigger zone (CTZ)
- Gastrointestinal tract

Neurotransmitters

- dopamine (CTZ, GI)
- serotonin (CTZ, GI!)
- acetylcholine (CTZ, GI, vestibular)
- histamine (CTZ, GI, vestibular)

Patient Assessment

- Relationship of symptoms to specific foods, drugs, movements, situations, odors, emotions and thoughts
- Ask about pain, dysphagia, & constipation
- Consider examination of the mouth, abdomen, rectum, and nervous system

Cortical Causes & Treatments

- CNS tumor
  - dexamethasone, radiation therapy
- Increased intracranial pressure
  - dexamethasone
- Anxiety
  - counseling, benzodiazepines
- Uncontrolled pain
  - opioids, other pain medications

Vestibular Causes & Treatments

- Vestibular disease (e.g. BPV)
  - meclizine, Transderm Scop®, ENT evaluation
- Middle ear infections
  - antibiotic and/or decongestant
- Motion sickness
  - meclizine, Transderm Scop®

CTZ Causes & Treatments

- Drugs (e.g. opioids, digoxin, chemotherapy)
  - decrease or discontinue drug
- Metabolic (e.g. renal failure, tumor products)
  - antidopaminergic agent, odansetron
- Hyponatremia
  - fluid restriction, demeclocycline
- Hypercalcemia
  - hydration, bisphosphonate therapy

GI Causes & Treatments

- Irritation by drugs (e.g. iron, NSAIDS)
  - stop drug, antacid treatment
- Tumor-related – infiltration, obstruction, motility
  - anti-emetic, metoclopramide
- Constipation or impaction
  - laxative, manual disimpaction
- Tube feedings
  - decrease feeding volume
- Thick secretions (cough-induced vomiting)
  - nebulized saline, anticholinergic agents

Medications

- dopamine antagonists
  - haloperidol, prochloperazine
- histamine antagonists
  - diphenhydramine, hydroxyzine, meclizine
- acetylcholine antagonists
  - scopolamine patch
- serotonin antagonists
  - odansetron (Zofran®) 8 mg PO BID
  - granisetron (Kytril®) 1 mg PO Q 12 hours

Medications

- prokinetic agents
  - metoclopramide 5 – 10 PO/IM/IV Q 6-8 hours
- antacids
  - PPI, H2 blockers
- cytoprotective agents
  - PPI, misoprostol

Medications

- lorazepam (Ativan®)
  - 0.5 mg PO Q 6 hours
- dronabinol (Marinol®)
  - 5 mg/ m^2 per dose
- dexamethasone (Decadron®)
  - 4 – 8 mg PO/SC Q4 – 8 hours

Routes of Delivery

- oral
- subcutaneous
- intravenous
- rectal
- most can be mixed with morphine & hydromorphone SC/IV if needed

Case

Mrs. Lee pages you urgently.

She felt better for about a week after starting prochloperazine for her nausea.

However, for the last 24 hours she has had intractable vomiting and increased abdominal distention and pain.

Bowel Obstruction

- Common in patients with advanced cancer, especially ovarian & colorectal
- Partial, complete, single or multiple

Bowel Obstruction

Causes may include:

1) Intraluminal obstruction (e.g. by tumor mass)
2) Direct infiltration of the bowel wall (e.g. colon carcinoma)
3) External compression of the lumen
4) Carcinomatosis causing dysmotility (e.g. ovarian cancer)
5) Intra-abdominal adhesions (e.g. from post-operative changes).

Bowel Obstruction

Symptoms may include:

- intestinal colic (cramping, intermittent pain)
- abdominal pain
- nausea and/or vomiting
- abdominal distension
- anorexia
- constipation/obstipation

Bowel Obstruction

Traditional treatment options:

- Surgery
- Venting gastrostomy
- IV fluids and nasogastric suction

Bowel Obstruction

Pharmacologic treatment:

- opioid analgesia for pain
- anti-emetic agents for nausea (anti-dopa)
- metoclopramide – consider for partial obstruction, although can worsen colic
- dexamethasone
  - decreases intestinal wall inflammation
  - decreases intestinal fluid production
  - central and peripheral antiemetic effects

Bowel Obstruction

Pharmacologic treatment:

- anti-spasmodic & anti-secretory agents:
  - scopolamine (IV/IM/SC/TD)
  - hyoscyamine (SL/PO)
  - glycopyrrolate (IV/IM/SC)
  - octreotide (IV/SC)

Case

Mrs. Fine is a 87 year old woman with osteoarthritis, hypertension, and breast cancer metastatic to the bone who comes in for follow-up.

She states that she is always very tired and spends most of the day sleeping.

Fatigue

- Evaluate for reversible causes
- Discontinue medications that may be contributing to fatigue
- Adjust activity level and get help with ADLs & IADLs - consider OT, PT
- Optimize fluid and electrolyte balance
- Educate patient and family about “fatigue” & giving pt “permission to rest”

Fatigue

- Pharmacotherapy
  - dexamethasone (Decadron®)
  - methylphenidate (Ritalin®)
    - 5 – 10 mg qAM & qNoon, titrate to effect
  - modafinil (Provigil®)

Resources

- Interdisciplinary approach
  - Chaplain, social work, nurses, psychologists/psychiatry, PT/OT/ST
- Pain consultation
- Palliative care consultation, hospice

Primary References

- UNIPAC Four: Management of Selected Nonpain Symptoms in the Terminally Ill, AAHPM, 1997.

- Module 10: Common Physical Symptoms, EPEC Project, the Robert Wood Johnson Foundation, 1999.

Primary References

- Module 3: Symptom Management, ELNEC Curriculum, AACN & COH, 2000.

- www.eperc.mcw.edu (See “Fast Facts” and other resources.)

Primary References

- Pocket Guide to Hospice/Palliative Medicine, AAHPM, 2003.