Respiratory Illness & Anxiety

Theodore A. Stern, MD
Chief Emeritus, Avery D. Weisman, MD Consultation Service,
Director, Office for Clinical Careers,
Massachusetts General Hospital;
Ned H. Cassem Professor of Psychiatry in the field of Psychosomatic Medicine/Consultation, Harvard Medical School;
Editor-in-Chief, Psychosomatics
Disclosures

“Neither I nor my spouse/partner has a relevant financial relationship with a commercial interest to disclose.”
Introduction

• Anxiety is common in those with pulmonary disorders, e.g.,
  – Asthma
  – Cystic fibrosis
  – COPD
  – Lung cancer

• Treatments involve:
  – Psychopharmacology
  – Behavioral treatments
Asthma

• The most common chronic disease in the US (17 million people)
• Often misdiagnosed as an anxiety disorder and *vice versa*
• Asthma and anxiety are often co-morbid
  – Anxiety may trigger an asthma attack and asthma often triggers anxiety
Asthma

- There was a 27% increase in the severity of asthma symptoms in NYC in the weeks post-9/11 (CDC, 2002)
- Psychological factors (including stress and anxiety) are powerful predictors of intubation
- Psychological factors and anxiety are associated with higher rates of mortality from asthma
Asthma

• Mechanisms of increased morbidity
  – Behavioral
    • Poor adherence
    • Poor technique with inhalers
    • Denial and delays in seeking care
  – Physiological
    • Vagus nerve mediates airway reactivity to emotion
Asthma

• Interventions to reduce stress
  – Biofeedback
  – Educational programs
  – Stress management/relaxation therapy
  – Yoga/Meditation

• Diagnose and treat anxiety disorders
  – Use DSM criteria and cardinal symptoms
  – Psychopharmacology/psychotherapy
Cystic Fibrosis

- Anxiety seen in most CF patients
- Depression and substance use disorders are common
- May lead to non-adherence with treatment
  - Adherent patients more likely to use optimistic acceptance and hopefulness
  - Non-adherent patients use avoidant strategies
Cystic Fibrosis

• Management
  – Treat stress/anxiety symptoms with:
    • Psychotherapy to improve coping strategies
    • Education
    • Groups (dealing with chronic illness)
  – Diagnose and treat anxiety disorders
  – Diagnose and treat co-morbid mood and substance use disorders
COPD

• 4\textsuperscript{th} leading cause of death in the US
• Hypoxia causes:
  – confusion, disorientation, altered consciousness, and cognitive dysfunction
• Air hunger frequently leads to anxiety and feeling out of control
• Anxiety is common
  – prevalence of panic disorder is unclear
COPD

• Depression and anxiety lead to:
  – Lower exercise tolerance
  – Non-adherence with treatments
  – Increased disability
  – Higher rates of smoking

• Some treatments increase anxiety:
  – Steroids
  – Bronchodilators
COPD

• Interventions
  – Smoking cessation (don’t be afraid of psychotropics)
  – Pulmonary rehab may increase one’s sense of control and decrease anxiety
  – Exercise has a positive psychological effect
  – Relaxation techniques can be helpful
  – Pharmacologic treatments for anxiety and depression
Lung Cancer

• Psychological distress is common & may reduce survival
  – Insomnia
  – Loss of libido
  – Depression
  – Anxiety
  – Pain
  – Fatigue
  – Air hunger
Treatments

• Maximize control of symptoms that contribute to anxiety
  – Breathlessness
  – Bronchospasm
  – Excessive secretions
  – Hypoxia

• Drugs for respiratory symptoms may contribute to anxiety
  – Steroids
  – Bronchodilators
  – Theophylline
Treatments

• Pharmacologic
  – SSRIs for Generalized Anxiety Disorder and Panic Disorder (don’t help much in the acute phase)
  – Buspirone may help in patients with hypercapnia
  – Benzodiazepines can be used in COPD/air hunger who don’t retain CO2
    • Short-acting without active metabolites (“OTL”: outside the liver)
      – Oxazepam
      – Temazepam
      – Lorazepam
    – Avoid long-acting benzos (e.g., diazepam) & beta-blockers
    – Watch for QTc prolongation
      • Agents in combination with SSRIs
Treatments

• Behavioral
  – Relaxation therapy
  – Hypnosis
  – Education
  – Pulmonary rehabilitation
  – Exercise
  – ? CBT
Summary

- Anxiety is common in many pulmonary illnesses
- Air hunger, medication side effects, and loss of control may cause anxiety
- Stress and anxiety worsen outcomes and increase morbidity and mortality in pulmonary illness
- Treatments include both behavioral and pharmacologic interventions
- SSRIs are the mainstay for chronic anxiety & short-acting benzos may be judiciously used
Recommended Reading


