ONCE UPON A TIME...
“I can’t breathe!”
Over the last week...

Difficulty breathing

Non-productive cough

Happens randomly (rest/exertion)

Bloating, belching

Can’t get air in or out

Worse laying down

Taxing to talk

Worse in her condo

Has had before, but never this bad

Worse working with fiber art
Her ROS...

Constitutional: Positive for fatigue, weight gain.
Respiratory: Positive for cough and shortness of breath.
Cardiovascular: Positive for palpitations, orthopnea, paroxysmal nocturnal dyspnea.
Gastrointestinal: Positive for epigastric pain, diarrhea, flatus.
Musculoskeletal: Positive for back pain, joint pain and myalgias.
Skin: Positive for facial rash.
Neurological: Positive for lightheadedness and headaches.
Psychiatric: Positive for anxiety and insomnia.
Historical Context

Past Medical History:
- Obstructive sleep apnea (uses mouth device)
- Paroxysmal SVT s/p remote ablation
- Prediabetes
- Hyperlipidemia
- Thyroid nodules
- PTSD (trauma-related deaths of parents & son)
- History of smoking (18 pack years)

Family History:
- Sister - lung cancer

Social History:
- Frequent & recent travel
Physical Exam

Vital Signs
- Afebrile
- BP 128/78 mm Hg
- HR 77 bpm
- RR 14
- O₂ 98% on RA
- BMI 29

General: alert, cooperative, somewhat uncomfortable appearing
HEENT: normal conjunctivae and anicteric sclerae, oropharynx clear without lesion or exudates and appearance of ears/nose normal without lesions
Neck: JVP not distended, no goiter or thyroid nodules palpated
Heart: regular rate and rhythm, S₁, S₂ normal, no S₃ or S₄, no murmur, click, or rub
Lung: chest is clear without rales or wheezing
Abdomen: abdomen is soft, no masses or organomegaly and bowel sounds normal. Mildly tender to deep palpation in epigastric region
Extremities: extremities normal without deformity, no clubbing or cyanosis, no edema
Skin: skin color, texture, turgor normal. No rashes or lesions
Psych: normal affect, not apparently anxious or depressed, judgment and insight appropriate in context of visit and apparently normal recent and remote memory
So... now what?
Approach to Dyspnea

**Neurological/Psychiatric**
- Myasthenia Gravis
- Toxidromes
- Anxiety, Panic attacks

**Upper Airway**
- Laryngitis/epiglottitis
- Angioedema
- Thyroid disease
- Vocal cord dysfunction

**Pulmonary**
- Asthma, COPD
- Pneumonia, Pleural Effusion
- Interstitial Lung Disease
- Pulmonary Embolism
- Malignancy

**Cardiac**
- Coronary artery disease
- Congestive heart failure
- Arrhythmia

**Abdominal**
- GERD
- Cirrhosis with ascites

**Heme**
- Anemia
- CO poisoning
- Methemoglobinemia
NORMAL
One week later...
“By the way, Doc, I’m leaving for Uganda this weekend. I’ll be gone for a month.”
KEEP CALM AND DON'T FORGET IT'S URGENT
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NORMAL
MILD ASTHMA
Approach to Dyspnea

**Pulmonary**
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- Malignancy

**Cardiac**
- Acute coronary syndrome
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VOCAL CORD DYSFUNCTION
Extensive lab testing
Chest X-ray x2
EKG
Peak flow meter
Thyroid ultrasound
Pulmonary function tests x2
Stress echocardiogram

$5698!
$5698 + 4 \times \text{Chair} = \approx \$7038!
What’s in a name?

Vocal cord dysfunction

Functional upper airway obstruction

Paradoxical vocal fold motion

Paradoxical vocal cord movement

Functional laryngeal stridor

Munchhausen's stridor

Psychogenic stridor

Inducible laryngeal obstruction

Episodic laryngeal dyskinesia

Episodic paroxysmal laryngospasm

Irritable larynx syndrome
Munchausen’s stridor: non-organic laryngeal obstruction

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Summary
A patient had at least 15 hospital admissions for symptoms of acute dyspnoea accompanied by loud stridorous sounds. These episodes had been diagnosed as acute airway obstruction and she was treated on all occasions on an emergency basis. In the absence of a definitive etiology and with other clues, it was then recognized that the patient was imitating the clinical appearance of laryngeal obstruction. Following the establishment of this, psychiatric care was initiated with the goal of rehabilitation of the patient, and there have been no further episodes to the present time.

Introduction
Although there are a variety of causes of acute or chronic upper airway obstruction (Table 1), the causes of acute intermittent obstruction of the upper airway are more limited and include allergic reactions, hereditary angioedema, recurrent infections, ball valve tumours and laryngeal spasm. These episodes may constitute life-threatening emergencies requiring the most immediate medical or surgical treatment to prevent anoxia and death. This report describes a patient who was able to imitate acute upper airway obstruction to the extent that physicians seeing her on at least an initial visit would always interpret her symptoms as organic obstruction and initiate emergency medical therapy. The symptoms in this case were demonstrated to be not on an organic basis and were either factitious or a conversion neurosis.
KEEP CALM IT'S NOT YOUR FAULT
A  Normal vocal cords at mid-inspiration
Healthy people

Unstable asthma

Anxiety, hyperventilation

Dysfunctional breathing

People with asthma

Shortness of breath

Middle airway obstruction

PVCM/VCD

Laryngeal hyperresponsiveness
- Sinus disease
- Reflux/inhaled irritants

Other factors
- Reduced FEV1
- High BMI
- Anxiety/depression
- Female gender

Activation laryngeal reflexes

Healthy people

People with asthma

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Activation laryngeal reflexes

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A young woman with a history of anxiety presents with acute episodic dyspnea of short duration amongst discordant symptoms including dysphonia and bloating, found to have normal vital signs and exam.

Dyspnea out of proportion to exam?
Diagnostic Testing
Flexible Fiberoptic Laryngoscopy
Management
... AND SHE
LIVED HAPPILY
EVER AFTER
Final Thoughts

• Heightened awareness and diagnostic accuracy

• Fewer invasive diagnostic & therapeutic interventions

• Cost conscious care
DisCORDant
Symptoms Simplified

Questions?
References

• Vocal cord dysfunction or inducible laryngeal obstruction: whatever it is, it exists. *Lancet – Respiratory*. 2017; 5:8 -548.
1. General visualization
2. “EEE”
3. Quiet breathing
4. Forced vital capacity maneuver
Intrinsic laryngeal musculature with relative positions of the thyroid, cricoid, and arytenoid cartilages