HELP! I NEED SOMEBODY!
VOICE-RELATED SPECIALTY CLIENT GROUPS:
VOCAL CORD DYSFUNCTION

VOCAL CORD DYSFUNCTION (VCD)
• Also known as paradoxical vocal fold motion (PVFM)
• For those with symptoms limited to exercise, exercise-induced laryngeal obstruction (EILO)
• Causes sometimes of illness varying in severity
• "Inappropriate closure of the vocal folds during inspiration resulting in stridor, dyspnea and dyspnea of exercise (EILO) during strenuous activity". Matthews-Schmidt, 2001; Sandage et al, 2004
• Frequently misdiagnosed as asthma
• Can cause profound changes in quality of life

WHAT IS DIFFERENT ABOUT VOCAL FUNCTION?
NORMAL RESPIRATION
• Inhalation: Vocal cords (folds) adduct to allow air to flow into the trachea, bronchial tubes, lungs
• On exhalation, the vocal folds may close slightly, however remain adducted

VOCAL CORD DYSFUNCTION
• Vocal function is reversed: Vocal folds adduct on inspiration (versus abduct)
• Especially on deep or forced inhales
• Leads to tightness and/or laryngeal spasm
• Inspiratory wheezes (stridor) evident

SYMPTOMS ASSOCIATED WITH VCD
• Stridor
• Difficulty mostly isolated to inspiratory phase
• Reports of throat tightening more than bronchial/peach pressure
• Dystonia during/following an attack (usually brief)
• Abrupt onset and resolution
• Little or no response to medical treatment (inhalers, bronchodilators)

A VARIETY OF POSSIBLE ETIOLOGIES
• Laryngopharyngeal reflux
• Chronic laryngeal instability, sensitivity & tension – chronic cough
• Psychologically driven reaction
• Asthma or allergy-associated laryngeal dysfunction
• Rare cases that have neurological or pulmonary causes – dystonia, brainstem dysfunction, COPD

CLIENT DESCRIPTIONS OF VCD EPISODES
• "It feels like I am pulling in breathe through a tiny straw, you know the narrow ones you use to stir coffee? The harder I pull, the worse it gets."
• "It's like I've got a tight collar around my neck that I can't stretch out."
• "It's so scary, you know? I need the air and can only suck in little bits at a time. My head feels like it's going to explode."
COMMON CLIENT PROFILES

- Onset between 11-18
- Females have a greater incidence (generally 3:1)
- High achieving/self expectations
- "Type A" personalities
- Associated with shift in level of performance required, level of competition, change of coaching staff
- May present with history of abuse
- May be associated with immaturity, difficulty managing anxiety

DIAGNOSTIC PROCESS IS KEY

- Laryngeal visualization is required to identify possible structural problems
- Thorough interview will lead to identification of triggers, confounding variables, best treatment approaches, need for outside referrals
- Rule out other possible medical etiologies

POINTS TO CONSIDER:

- It is generally agreed that patients do not consciously manipulate or control their upper airway obstruction
- Physical/physiological breathing difficulties often lead to panic attacks, chronic fear related to triggers
- SLPs are behavioral therapists uniquely prepared to guide these clients to change their way of breathing and response to episodes of laryngeal constriction

TREATMENT: SPEECH THERAPY

- Patient counseling, education
- Respiratory retraining
- Focal and whole body relaxation
- Phonatory retraining
- Monitor reflux symptoms, anxiety
- Develop a plan
- Practice when asymptomatic: build up to ultimate goal via gradual levels of physical exertion

SPEECH THERAPY

- Counseling
  - Coach client as supportive supporter - with reassurance
  - Steps to acute management while teaching other strategies
  - Prompting best breathing
  - Easy breathing phases
  - Relaxation
  - Changes in level of noise when making sound
  - Radiotherapy
  - Visualization exercises: vision of oral cavity made in image or reality; sounds of mouth - find what works best for each client
- Education
  - Description of laryngeal events
  - Viewing at endoscopic recording
  - Visual and cognitive restoration

RELAXATION TRAINING

- Goal
  - Teach client to relax focal area of tension, then the entire body in preparation for something challenging or during an episode of respiratory distress
  - Progressive relaxation, guided imagery
  - Explore the patient's visual concept of what happens during their VCD episodes, guide them to discover alternative, improved outcomes
  - Shift their focus from fear and anxiety to confident control of breathing
SPEECH THERAPY

• RESPIRATORY TRAINING
• LOW "DIAPHRAGMATIC" BREATHING VERSUS "HIGH" CLAVICULAR OR THORACIC CENTER OF BREATH
• RHYTHMIC RESPIRATORY CYCLES
• USE RESISTANCE EXHALE
• DRAW ATTENTION AWAY FROM LARYNX
• EXTEND EXHALE
• FOCUS ON PRESSURE CREATED ABDOMINALLY
• PREVENTION AND COPING STRATEGIES DURING EPISODES
• WORK WITH CLIENT TO ESTABLISH PLANS

OPEN THROAT BREATHING OPTIONS
• SNIFF THEN BLOW
• SNIFF = ABDUCTION
• SILENT INHALES THROUGH NOSE
• REVERSE MEGAPHONE ORAL CAVITY POSTURE
• ALMOST YAWN
• THEN EXHALE WITH PURSED LIPS (BACK PRESSURE RESPIRATION)
• "SSSSSS"
• "SHHHHHH"
• "FFFFFFFF"
• "WHHHHHHHH" ; PURSED LIPS – LIKE THROUGH A STRAW
• IMPLEMENT IN VARYING POSTURES AT VARYING LEVELS OF PHYSICAL EXCURSION

THERAPEUTIC GOALS/TREATMENT TARGETS

• GOAL
• CLIENT WILL REDUCE LARYNGEAL/EXTRALARYNGEAL MUSCLE TENSION
• CLIENT WILL FOCUS ATTENTION AWAY FROM LARYNGEAL CONSTRICTION

• TX OPTIONS
• OPEN THROAT BREATHING STRATEGIES; RESONANT VOICE THERAPY; LARYNGEAL MASSAGE
• DIAPHRAGMATIC BREATHING AND PURPOSEFUL EXHALATION PATTERNS

• GOAL
• CLIENT WILL REDUCE UPPER BODY /THORACIC MUSCLE TENSION
• CLIENT WILL EFFECTIVELY USE BREATHING STRATEGIES TO REDUCE SEVERITY AND FREQUENCY OF ATTACKS
• CLIENT WILL OVERCOME FEAR AND HELPLESSNESS RELATED TO VCD EPISODES

• TX TARGETS
• POSTURAL AWARENESS, STRETCHING, PROGRESSIVE RELAXATION, MEDITATION, ETC.
• INCREASE AWARENESS OF EARLY WARNING SYMPTOMS; REHEARSE ACTION PLAN
• INDEPENDENT AND EFFECTIVE USE OF BREATHING STRATEGIES

ST DURATION: THE CCHS APPROACH

• 2-8 SESSIONS, AVERAGE 4 SESSIONS
• COMPLETE LATER SESSIONS IN REALISTIC ENVIRONMENTS (E.G., CROSS COUNTRY COURSE, VOLLEYBALL GYM, SWIMMING POOL, STAIRWAY)
• FOLLOW-UP, RE-EVALUATION AS NECESSARY, IF SYMPTOMS REOCCUR

REFERENCES


