

# HELP! I NEED SOMEBODY!

## VOICE-RELATED SPECIALTY CLIENT GROUPS: VOCAL CORD DYSFUNCTION

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## 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 SHORTNESS OF BREATH VARYING IN SEVERITY
  - "INAPPROPRIATE CLOSURE OF THE VOCAL FOLDS UPON INSPIRATION RESULTING IN STRIDOR, DYSPNEA AND SHORTNESS OF BREATH (SOB) 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) ABDUCT ALLOWING AIR TO FLOW INTO THE TRACHEA, BRONCHIAL TUBES, LUNGS
- ON EXHALATION, THE VOCAL FOLDS MAY CLOSE SLIGHTLY, HOWEVER REMAIN ABDUCTED

### VOCAL CORD DYSFUNCTION

- VOCAL FUNCTION IS REVERSED - VOCAL FOLDS ADDUCT ON INHALATION VERSUS ABDUCT
  - ESPECIALLY ON DEEP OR FORCEFUL INHALES
- LEADS TO TIGHTNESS AND/OR LARYNGEAL SPASM
- INSPIRATORY WHEEZE (**STRIDOR**) EVIDENT

## SYMPTOMS ASSOCIATED WITH VCD

- STRIDOR
- DIFFICULTY MOSTLY ISOLATED TO INSPIRATORY PHASE
- REPORTS OF THROAT TIGHTENING MORE THAN BRONCHIAL/CHEST PRESSURE
- DYSPHONIA DURING/FOLLOWING AN ATTACK (USUALLY BRIEF)
- ABRUPT ONSET AND RESOLUTION
- LITTLE OR NO RESPONSE TO MEDICAL TREATMENT (INHALERS, BRONCHODILATORS)

## A VARIETY OF POSSIBLE ETIOLOGIES

- LARYNGO-PHARYNGEAL 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 BREATH 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 THEM, BE SUPPORTIVE, EMPATHETIC – OFFER REASSURANCE
  - OPTIONS FOR ACUTE MANAGEMENT WHILE TEACHING OTHER STRATEGIES
    - PROMPT FOR EASY BREATHING
    - ELICIT CONTROLLED PANTING
      - RELAXED JAW
      - TONGUE ON FLOOR OF MOUTH BEHIND BOTTOM TEETH
      - VISUALIZE OPEN AIRWAY
      - SHOULDERS RELAXED, STANDING W/ OPEN CHEST, HANDS ON HIPS, OR BENT OVER/ HANDS ON KNEES – FIND WHAT WORKS BEST FOR EACH CLIENT
- EDUCATION
  - DESCRIPTION OF LARYNGEAL EVENTS
  - VIEWING OF ENDOSCOPIC RECORDING
  - FLEXIBLE ENDOSCOPIC BIOFEEDBACK

## RELAXATION TRAINING

- GOAL
  - TEACH CLIENT TO RELAX FOCAL AREAS 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
      - PREVENTION
      - RECOVERY
    - COACH THEM THROUGH OPPORTUNITIES TO EXECUTE THESE PLANS

## OPEN THROAT BREATHING OPTIONS

- **SMIFF THEN BLOW**
  - SNIFF = ABDUCTION
- **SILENT INHALES THROUGH NOSE**
  - REVERSE MEGAPHONE ORAL CAVITY POSTURE
  - ALMOST YAWN
- **THEN EXHALE WITH PURSED LIPS (BACK PRESSURE RESPIRATION)**
- "SSSSSS"
  - "SHHHHH"
  - "FFFFFF"
  - "WHHHHHHH": 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

## THERAPEUTIC GOALS/TREATMENT TARGETS

### • 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

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