Vocal Cord Dysfunction

In 1983, doctors described a condition that may be confused with asthma. This condition is called vocal cord dysfunction, or VCD. People with VCD will report asthma-like symptoms to their doctors. To understand VCD, it is helpful to understand how the vocal cords function. The vocal cords are located at the top of the windpipe (trachea) and vibrate from exhaled air to produce noise and voice. Breathing in and out causes the vocal cords to open allowing air to flow through the windpipe (trachea). However, with vocal cord dysfunction, the vocal cords close together, or constrict, during one or both parts of the breathing cycle. This leaves only a small opening for air to flow through the windpipe and causes asthma-like symptoms.

Triggers

Possible triggers of vocal cord dysfunction are often similar to asthma triggers and may include:

- Upper respiratory infections, Indoor air pollution, Strong Chemical fumes and odors, Cigarette smoke, Singing, Laughing, Emotional upset, Post-nasal drip, Gastroesophageal reflux (GERD), Silent Reflux, Cold Air, and Exercise.

Symptoms

The primary reason vocal cord dysfunction (VCD) is confused with asthma is because the two respiratory diseases share such similar symptoms. Like asthma, symptoms of VCD include:

- Shortness of breath, Intermittent hoarseness and/or wheezing, Chronic cough and/or throat clearing
- Chest and/or throat tightness, "Just having trouble getting air in."

These symptoms are a result of an abnormal closing of the vocal cords rather than inflammation of the airways.

Diagnosis

Based on the symptoms of vocal cord dysfunction (VCD), many people may be misdiagnosed with asthma and treated with asthma medications. Since VCD is not asthma, little or no improvement is seen in symptoms. If VCD is still not diagnosed, oral steroids (used in other chronic lung diseases like severe asthma) may be prescribed. Significant side effects can develop with long-term use of these medicines. Oral steroids are only recommended if it is shown that the benefits of their use outweigh the costs. Additionally, a misdiagnosis can also lead to frequent emergency room visits and hospitalizations - even intubation.

While it should be clear why a correct diagnosis of VCD is important, it is also critical to keep in mind that some people have both VCD and asthma, which complicates both the diagnosis and the treatment.

Breathing tests like spirometry can be useful in diagnosing VCD, but only if they are done when symptoms are occurring. In the absence of any other complicating condition like asthma, breathing tests for VCD will be normal. However, if spirometry is conducted when symptoms are present, and if the doctor obtains what is called a "flow volume loop," VCD will cause a flattening of the inspiratory (and/or expiratory) part of the loop.

And while spirometry is important and useful, a procedure called a laryngoscopy is the most important test in making the diagnosis of VCD. Using a flexible, fiber optic tube and tiny camera inserted into the back of the throat, a specialist can see how the vocal cords open and close. Like spirometry, this test should only be performed when symptoms are present because the vocal cords function normally in the absence of symptoms. Since people with VCD cannot trigger symptoms voluntarily, different tests to trigger symptoms may be required.
Associated Conditions

Many people with vocal cord dysfunction (VCD) have problems with postnasal drip (from chronic nasal and/or sinus congestion), gastroesophageal reflux disease (GERD) or laryngopharyngeal reflux (LPR). This relationship may be one of cause and effect because these two conditions can lead to chronic irritation of the throat that then causes the vocal cords to become hypersensitive to irritant stimuli. In the case of postnasal drip, excess mucus and congestion can cause problems, while in the case of GERD, stomach acid can cause damage to areas in the proximity of the vocal cords.

Treatment

Once diagnosed with vocal cord dysfunction (VCD), a specific treatment program can begin. If both asthma and VCD are diagnosed, asthma medications may be continued, but are often decreased. There are many special exercises and therapies that help control VCD. Speech-language pathology (speech therapy) is a very important part of the treatment for VCD. Special exercises increase your awareness of abdominal breathing and relax your throat muscles. This enables you to have more control of your vocal folds and throat. Learning cough suppression and throat clearing techniques can also be extremely helpful. Practicing these techniques when symptom free ensures effective use of them during an episode. All of the exercises are aimed at overcoming abnormal vocal cord movements, controlling the vocal folds with the breath stream, and improving airflow into the lungs. Another important part of treatment is supportive counseling. Counseling can help adjust to a new diagnosis and a new treatment program. Counseling can also help identify and deal positively with stress that may be an underlying factor in VCD. Most people with VCD find counseling to be very beneficial.

Lifestyle Management

Living with the symptoms of vocal cord dysfunction (VCD) - shortness of breath, intermittent hoarseness and/or wheezing, chronic cough and throat clearing, chest and throat tightness, or "just having trouble getting air in," - can be frustrating and even downright scary. The good news is that you don't have to live with these symptoms; VCD can be treated. The best thing you can probably do to treat VCD is to see a speech-language pathologist (also known as a speech therapist). A speech-language pathologist can help you in many ways: Symptoms of VCD are often brought on by triggers, such as strong chemical fumes, cold air, or laughing. A speech-language pathologist can help you recognize the early symptoms of an episode as well as help you identify the triggers. Early recognition of symptoms enables you to start your preventative breathing techniques early. Identifying the triggers of your episodes will help you avoid these triggers and reduce the number of episodes. A speech-language pathologist can teach you techniques to control abusive throat behaviors such as a chronic cough or chronic throat clearing. These abusive throat behaviors aggravate the vocal folds and makes VCD worse.

- A speech-language pathologist can teach you new breathing techniques like diaphragmatic breathing (or abdominal breathing) and vocal fold control that can help make symptoms less severe during an episode. Stress reduction and relaxation techniques can also be learned to alleviate the anxiety that often accompanies or triggers an episode. The goal of therapy is to teach you techniques to prevent and eliminate VCD, chronic cough and chronic throat clearing.
- A speech-language pathologist will teach you about the anatomy and the functioning of the vocal folds. Learning about what happens to the vocal folds during an episode is helpful because it allows you to visualize what's going on inside your throat when practicing your new breathing techniques.