Background: The purpose of this case study is to present the unique case of an athlete experiencing vocal cord dysfunction (VCD), a medical disorder that is commonly misdiagnosed as exercise induced asthma. VCD is the abnormal closing of the vocal cords during inspiration of the respiratory cycle resulting in vocal cord dysfunction. The subject of this case study is a 19-year-old, Caucasian female sprinter on a women's collegiate track and field team. The athlete complained of "heavy breathing", loud, raspy breathing, shortness of breath, chest tightness, excessive mucus, and a sensation of her "throat closing" while running during track practices and competitions. The athlete initially started to experience these respiratory issues during the previous competitive season but did not report it. Her current symptoms slowly appeared and became more frequent over the span of two months. The athlete denied the presence of a pre-existing respiratory condition, but described a previous history of bronchitis and frequent upper respiratory infections during the winter months. She also complained of gagging and acid reflux during periods of previous illness (such as a cold or the flu). The athlete reported a history of seasonal allergy symptoms for which she was taking Singulair® once a day. The athlete was referred to a pulmonologist for thorough evaluation of her ear, nose, throat, chest and heart. She also had a chest x-ray and series of pulmonary function tests. The results of these tests and her symptoms lead to a diagnosis of exercise-induced asthma (EIA) with accompanying VCD. Differential Diagnosis: Differential diagnoses for VCD include asthma, exercise induced asthma, bronchial obstruction, anaphylaxis, croup, upper respiratory infection, laryngeal spasm, and foreign body obstruction. Treatment: The physician prescribed Flovent® 110 mcg twice a day and Proventil® twenty to thirty minutes before strenuous activity, and three to four times a day while experiencing an upper respiratory tract infection. She was also advised to see a speech pathologist for breathing and speaking exercises to help with the VCD symptoms. Singulair® was discontinued. Other possible treatments used for VCD include psychotherapy, helium-oxygen therapy, botulinum toxin, panting, biofeedback, and topical lidocaine. Uniqueness: VCD is a rare disorder found in athletes. This particular respiratory disorder can be properly diagnosed and managed with an understanding of both VCD and EIA to distinguish symptomatic differences. Conclusion: VCD is an atypical closing of the vocal cords during inspiration of the respiratory cycle. It can be difficult to diagnose due to its similar symptoms to other respiratory problems, especially asthma and EIA. Referral to a respiratory specialist and testing for a confirmed diagnosis is critical to proper treatment and athletic performance. Word Count: 435