**Bronciectasis Teaching Script:**

Bronchiectasis is a chronic airway disease that can be complicated by intermittent bouts of airway infection. In addition the disease itself and the progression may be the result of airway infection. The disease is characterized pathologically by an abnormal and permanent dilation of subsegmental airways. In this condition the airways are dilated and inflamed, they become obstructed by thick secretions that may intermittently become infected. The actual shape of the abnormal airways has led to a classification system that characterizes the involvement as being cylindrical, varicose or saccular.

There are multiple causes of bronciectasis, most often being respiratory infections such as TB, a bacterial, fungal or viral illness. The usual pathogens are H.influenza and pneumococcus. When airway infection occurs, it is accompanied by a brisk inflammatory response with the release of neutrophilic proteases that can damage the airways and lead to more bronchiectasis. Episodes of airway infection are treated promptly and possibly in a prophylactic manner to limit disease progression.

The major symptom of bronchiectasis is a cough which is usually productive but can be dry. In severe cases, patients may expectorate more than 150ml of sputum daily. The disease is usually accompanied by chronic bacterial colonization of the lower respiratory tract. When the quantity of sputum increases and becomes purulent, its usually in association with fever and dyspnea and infection is present and requires antibiotics.  Physical examination may reveal clubbing, nasal polyps and adventitious breath sounds.

Some patients may receive antibiotics monthly.   Episodes of airway infection are treated with antibiotics similar to those used in chronic bronchitis. Aerosolized antibiotics are sometimes used in patients with cystic fibrosis. Other adjunctive therapies include chest PT, postural drainage, BDs, oxygen, pneumococcal vaccine and yearly influenza vaccine.

 In some cases surgical lung resections are needed. Bronchiectasis should be confirmed by high resolution CT. Routine CXRs may show areas of increased airway markings, ATX, dilated bronchi or cavities.