Hemoptysis

Hemoptysis is coughing up blood from your airways. Air gets into your lungs through these airways. Often when a person spits up blood, it may come from somewhere other than the lungs. The blood can come from the nose, mouth, throat, or *gastrointestinal* (gut) tract. It can also come from the airway passages leading to the lungs. It may come from the lungs themselves.

Blood-tinged *mucus* (secretions) in a healthy nonsmoker usually indicates a mild infection. This is normally no cause for concern. The most common cause of hemoptysis is the least serious. It is usually a ruptured small blood vessel. This is usually caused by coughing and/or infection. Hemoptysis may be a sign of a more serious problem, like cancer. This is more likely in patients with a history of smoking. It also may be a sign of a more serious problem in those at risk for lung disease. You should always contact a caregiver if you develop hemoptysis. **This is important**. Even mild cases of hemoptysis may lead to serious breathing problems. This depends on the cause of the bleeding.

Hemoptysis may reoccur from time to time. There is no way to predict whether or not patients with mild hemoptysis are at risk for massive bleeding. Diagnosing mild episodes is important. This helps prevent situations that may turn into something more serious. **A large amount of bleeding into the lungs is a serious threat to life.**

OTHER CAUSES OF HEMOPTYSIS INCLUDE:

- Bronchiectasis. This is a long standing infection of the small air passageways. There may be recurrent, brief episodes of hemoptysis.
- A blood clot in the lungs that can lead coughing up blood.
- Infections such as pneumonia and tuberculosis can lead to coughing up blood.
- Hemoptysis can also result from breathing in a foreign body.
- Menstruation related hemoptysis occurs monthly.

DIAGNOSIS (FINDING OUT WHAT IS WRONG)

Your caregiver will perform tests to find if the bleeding is coming from your lungs. Depending on the type of the hemoptysis and chance of cancer, the diagnosis involves further testing. This may include a physical, blood tests, and other special testing.
Some of these tests may include:

- A CT scan is a specialized x-ray that gives more information than the standard chest x-ray.
- A bronchoscopy is a procedure for looking into the lungs with a specialized instrument like a small telescope.
- Pulmonary angiography may be done if there is a chance that the underlying cause is related to a *vascular disorder* (a blood vessel disorder). Angiography is a specialized x-ray procedure that looks at the vessels in the lungs. Angiography produces a picture called an "angiogram". It requires injecting a dye into the blood vessels. This makes them easier to see.

TREATMENT

- Treatment for hemoptysis depends on the cause. It also depends on the quantity of blood. Infrequent, mild hemoptysis usually does not require specific, immediate treatment.
- There is no way to predict whether or not a patient with mild hemoptysis will experience large, life-threatening bleeding. It is important that the cause be found and treated.
- Major bleeding is a medical emergency. Steps are usually taken to find the source and stop the bleeding.
- About one third of cases of hemoptysis do not have an evident cause. In these cases treatment can be conservative and monitored for at least 2 or 3 years after the initial diagnosis. If a person has a normal chest x-ray and bronchoscopy, the hemoptysis usually clears within 6 months.
- In longstanding hemoptysis, the treatment is dependent on the *symptoms* (problems) and causes. Sometimes all that is needed are different *antibiotics* (medications that kill germs). Sometimes more aggressive

treatment may be needed.

- Treatment of mild to moderate hemoptysis in patients who have chronic bronchitis, bronchiectasis, or tuberculosis usually involves antibiotics. For cancer of the lung, treatment depends on the stage of the cancer.

Some methods of controlling active moderate to severe bleeding include: bronchial artery embolization, surgical resection, and bronchoscopic laser therapy.

- **Bronchial artery embolization** involves injecting substances into the bloodstream to stop blood flow. It can have good long-term effects as well; although It is not always successful and is not without complications.
- **Surgical removal** of the tissue causing the hemoptysis is effective.
- **Bronchoscopic laser therapy** involves using laser therapy during a bronchoscopy to remove *tumors* (lumps) and *lesions* (sores) or widen airways.

SUMMARY

Multiple methods are beneficial in controlling or curing hemoptysis. The pros and cons of the various techniques depend on the equipment and skill of the doctor performing the procedure. The patient should discuss the various procedures with their caregivers.

For mild or moderate hemoptysis in patients who have chronic bronchitis, bronchiectasis, or tuberculosis, treatment usually involves antibiotics. For bronchogenic carcinoma, treatment depends on the stage of the cancer.

When there is not a known underlying cause, treatment is usually conservative. When the underlying cause is not found, the hemoptysis should be carefully monitored for at least 2 or 3 years after the initial diagnosis. In 90% of patients who have a normal chest x-ray and bronchoscopy, the hemoptysis usually clears within 6 months.

Follow-up depends on the cause and severity of the hemoptysis. You should discuss the need for return appointments with your caregiver.

SEEK IMMEDIATE MEDICAL CARE IF:

- You begin to cough up large amounts of blood.
- You develop problems with your breathing.
- You begin vomiting blood or see blood in your stool.
- Develop chest pain.
- Feel faint or pass out.
- You develop a fever over 102º F (38.9º C), or as your caregiver suggests.

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