GUIDE TO ASBESTOSIS

What is Asbestosis?

Asbestosis, sometimes called fibrosis, is a chronic progressive disease. The affected part or parts of the lungs develop scarring and eventually the appearance of tiny particles of asbestos known as asbestos bodies are often visible embedded in the lung tissue.

What causes Asbestosis?

Asbestosis is caused by breathing in asbestos fibres. It is a cumulative disease, which means that every period of exposure to asbestos increases the likelihood of a person going on to develop asbestosis. The tiny asbestos fibres penetrate the lung and irritate the tissues causing thickening of the lining and scarring. It is this process that leads to the characteristic honeycombing effect. This process gradually makes it more difficult for oxygen to be absorbed from the atmosphere to the blood and for waste carbon dioxide to be breathed out.

What are the symptoms of Asbestosis?

Symptoms include shortness of breath, especially when exercising and also coughing and severe and continuous wheezing. Sometimes a patient complains of a feeling of tightness in the chest. A chest physician can often detect a distinctive crackle in the lungs where asbestosis is present. The most prominent symptom in the majority of patients suffering from asbestosis is breathlessness. In the later stages of the disease, patients may develop coughing.

As well as the common symptoms, a chest physician may also notice certain signs that point towards a diagnosis of asbestosis such as the clubbing of the patient's fingers where the finger ends become broader and the tip of the nail curves inwards.

How is Asbestosis diagnosed?

Diagnosis of asbestosis is usually dependant upon the results shown by a CT scan and a detailed history of a patient's exposure to asbestos.

Chest x-ray

Plain x-rays can often show changes in the substance (parenchyma) of the lung that are suggestive of asbestosis. However other conditions can sometimes cause the same changes including idiopathic pulmonary fibrosis, lung fibrosis associated with certain types of arthritis (rheumatoid arthritis) and connective tissue diseases (such as progressive systemic scelrosis). If pleural plaques, diffuse pleural thickening or pleural effusions are also detected this will be indicative of substantial past asbestos exposure in the individual concerned and may be persuasive that any fibrosis present was in fact caused by asbestos inhalation.

Lung function tests

Lung function tests measure the volume of air that a patient is able to inhale and exhale and also the ability of the lungs to transfer oxygen and carbon dioxide to and from the blood under specific condition.

Asbestosis can restrict lung capacity in a characteristic manner. Comparison of lung function tests over time are often used as an indicator of progression of asbestosis.

Bronchoscopy / biopsy

A lung biopsy usually indicates whether there are asbestos bodies present in the lung tissue. A bronchoscopy can detect asbestos in the bronchoalveolar fluid or sputum. In practice, both of these procedures are only carried out occasionally.

Computer tomography scans (CT scans)

A high resolution CT scan is an image produced by an x-ray source that rotates around the patient. High frequency energy beams (x-rays) are passed through the patient and detected by sensors on the other side. The information is analysed by a computer to produce a cross section image of the patient. A CT scan will be able to detect abnormalities in tissue that would not show up on a plain x-ray.

Comparison of CT scans taken over time is a method of assessing the progression of asbestosis.

Detailed history

There is no substitute to taking a detailed history from the patient about past asbestos exposure and the likely sources whether occupational, environmental or in the home, although domestic exposure to asbestos is highly unlikely to lead to asbestosis.

Other lung diseases

Other respiratory diseases that are not caused by asbestos include:

- Pleurisy which is an infection of the lining of the lung often treated with antibiotics
- Pneumonia which is inflammation of the lungs caused by infection and again is usually treated with antibiotics
- Respiratory Distress Syndrome which is a condition in which there is a build up of fluid in both lungs and requires treatment in intensive care

Treatment

There is no cure for asbestosis. Treatment is aimed at relieving the symptoms of breathlessness and preventing complications.

An oxygen concentrator is often made available in the patient's own home to provide the patient with an additional source of oxygen enabling the patient to breathe easier.

Infection is treated with antibiotics.

Recommendations

Once established asbestosis can remain stable or progress more rapidly.

Unfortunately there is little that can be done to stabilize or control the rate at which the disease progresses and the only recommendation that can be made is to stop smoking and avoid tobacco smoke including second hand smoke and other irritants such as dust immediately. Patients are also advised to attend their doctor regularly for monitoring and assessment and to consider vaccinations against influenza and pneumonia.

Seek legal advice.

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