

Mediastinal Tumors

What is it?

Mediastinal Tumors are tumors that are located within the mediastinum. The mediastinum is the area in the center of the chest, located between the lungs. A number of important structures are located within the mediastinum. These structures include the heart, pericardium, aorta, vena cavae, pulmonary artery, thymus gland, trachea, esophagus, sympathetic nerves, and lymphatics.

Mediastinal tumors are usually initially detected as an abnormality on the Chest X-ray. Sometimes they can only be seen on a CT scan. Most of them grow silently, without symptoms directly related to the tumor. Some can cause chest pain, cough, shortness of breath, or obstruction of important blood vessels. For this discussion, the mediastinum is divided into anterior and posterior compartments, each containing characteristic tumors.

Anterior Mediastinal Tumors

Anterior mediastinal tumors are usually one of four types, originating from the thymus gland, the thyroid gland, the lymph glands, or germ cells.

Thymus

Tumors of the thymus can be benign or malignant. They are usually best treated by excision. We typically use a median sternotomy incision (heart surgery incision) to perform a thymectomy.

Thyroid

Mediastinal thyroid tumors are usually large goiters that are continuous with the thyroid gland in the neck. If it is deemed necessary that they be removed, they are treated by excision, usually using a median sternotomy (heart surgery incision.)

Lymphatic

Lymphatic tumors are tumors of the lymph glands. Lymphatic tumors may be benign or malignant. These tumors may be initially detected simply as enlarged lymph nodes seen on CT scan or Chest X-ray. This enlargement may be caused by granulomatous inflammation (a benign process), or by cancer. The cancer can either be a primary cancer of the lymphatics called a lymphoma, or can be a cancer that has spread to the lymph nodes from somewhere else, such as a lung cancer. Both operations typically allow the patient to go home the day following surgery, and to eat a normal diet within a few days.

Benign processes do not require surgical removal. Malignant processes are treated with chemotherapy and/or radiation therapy

Germ Cell Tumors

Germ cell tumors are unusual tumors that exhibit unusual features of embryonic, or fetal, tissue. The tumors are mixtures of disorganized tissue including hair, bone, teeth, gut, and neural tissue. They can be excised.

Posterior Mediastinal Tumors

The most common solid tumor of the posterior mediastinum is the Schwannoma. Schwannomas are typically slow growing tumors of the sheath of the nerve cells of the sympathetic nervous system. The sympathetic chain of ganglion cells lies along side the spine on the inner lining of the chest wall. (See the illustration in the article Thoracic Sympathectomy.) These tumors are excised. Usually a thoracotomy is required, although some have been removed using thoracoscopy.