Mediastinal masses

By dr montazer

Lymphomas

- Lymphomas account for about 15% of all primary mediastinal masses.
- one-third of the lymphomas are Hodgkin and two-thirds are non-Hodgkin.
- Almost all lymphomas are in the anterior and middle mediastinum; they are uncommon in the posterior compartment.
- In pediatric patients, up to 45% of anterior mediastinal masses are lymphomas.
- Mediastinal lymphomas most likely arise from the thymus or lymph nodes,
- hence their location in the anterior or middle mediastinum.Some 60% of all Hodgkin lymphoma patients have mediastinal disease at presentation, with only 3% having tumor limited to intrathoracic sites.
- As for non-Hodgkin lymphomas, 20% involve the mediastinum, whereas <10% are limited to this site.

Most subtypes of lymphoma can occasionally involve the mediastinum, but several entities have a unique affinity for the mediastinum and their clinical features are often related to the presence of a mediastinal mass.

These include:

Hodgkin lymphoma, primary mediastinal B-cell lymphoma, and lymphoblastic lymphoma.

Primary mediastinal B-cell lymphoma and lymphoblastic lymphoma have been recognized as unique disease entities with a tropism for the mediastinum in the last two decades .

- HL is a very chemosensitive and radiosensitive disease.
- High cure rates can be obtained in newly diagnosed patients and in a considerable proportion of patients with recurrences.
- the successes have been tempered by serious late side effects resulting from radiation and chemotherapy.
- Inpediatric patients, growth retardation and infertility are of concern.

Benign and Malignant Neurogenic Tumors of the Mediastinum in Children and Adults

- Neurogenic tumors occurring in the mediastinum, almost exclusively in the ***paravertebral sulci***, in infants and children most commonly arise from tissues of the autonomic ganglia and only infrequently are of nerve sheath origin.

- Rarely, a tumor of neuroectodermal origin also may occur in this location. Even less common is a lesion arising from the paraganglionic system.

- In the majority of reviews of childhood mediastinal tumors, the neurogenic tumors (most of which as noted are of neuronal cell origin) account for up to 40% of the total number of lesions encountered.
-

- Tumors of the Autonomic Ganglia Tumors of the autonomic ganglia arise from the primitive neural crest cells, which can have tangled cell processes resulting in a pink background of neuro pil.

- These tumors are associated with a greater or lesser amount offibrovascular stroma.
- The lesions may be frankly benign (e.g., the ganglioneuroma), malignant to varying degrees(e.g., the ganglioneuroblastoma), or frankly and aggressively malignant (e.g., the neuroblastoma).
- The latter not only invades locally but is associated with widespread disease.

germ cell tumors

- The incidence of mediastinal tumors 1 in 3,400 hospital admissions.
- Benign germ cell tumors are uncommon and account for 5% to 10% of all mediastinal tumors.

- They divided them into three categories:
- 1-benign germ cell tumors 2- seminomas, 3-nonseminomatous germ cell tumors, also calledmalignant teratomas.
- The germ cell tumors consist of choriocarcinoma, yolk sac carcinoma, embryonal carcinoma,and teratocarcinoma.
- Benign germ cell tumors have also been referred to as epidermoid cysts, dermoids, benign teratomas, or simplyteratomas.