

ANTERIOR MEDIASTINAL MASS

ant to trachea and post heart, the 4 "T" lesions
Obliterates the ant jxn line - V shaped confluence of ant lungs

Thymic lesions - sharply defined, rare calc, pt >40y/o
N thymus at maximum wt by puberty
may also have normal enlargement following lymphoma Tx
MRI - abn determined by heterogeneity, size & shape not signal

Thymic Hyperplasia - enlargement w N histology
#1 in children, response to stress, rarely causes resp distress
Seen in 60% of Myasthenia Gravis pts
only 15% have thymoma

Thymoma -#1 mass here, 50% of adults develop myasthenia gravis
does not compress against sternum: sulcus sign
Tumor classified by cell of origin
Lymphocytic, Epithelial or mixed
40-50y/o, 25% calc, 10% cystic
rare in children & never assoc w myasthenia gravis
25% are locally invasive to chest wall or drop mets to pleura
distal mets are very rare
CXR - detects the majority of masses, CT helpful

Thymic carcinoid - Neural crest origin, Kulchitsky cells
25% develop cushings and MEN, II' to corticotropin sec
Aggressive but usually Dx early due to cushings
Rarely develop carcinoid syndrome

Thymic cyst - epi lining, thymic tissue in wall
Assoc w treated Hodgkins Dz, P thoracotomy or congen
DDx - Cystic deg of thymoma, lymphoma or germ cell

Thymolipoma - Rare, benign lipoid & thymic tissue mix
May envelop heart & diaph, asym, resection curative
CT - readily defines lg fatty components

Thymic Carcinoma - epi cells form squamous ca, lung met
local invasion seen at time of Dx

Thymic Lymphoma - seen in 50% of sclerosing Hodgkin's
Other enlarged nodes key to Dx
DiGeorge Syn - Thymic & parathyroid aplasia
3rd & 4th pharyngeal pouch deformity, thyroid hypoplasia also
Susceptible to infection & hypoparathyroid
low set ears, mandible deformity & congenital heart Dz

Germ Cell Tumors - Cell rests from migration to gonads
Histo identical to gonadal ca, must exclude gonadal I'
assoc w retroperitoneal nodes
Softer, tend to compress, no sulcus

Teratoma - #1 benign germ cell neoplasm, usually cystic, F>M
 Solid usually malignant, almost exclusively male
 90% ant mediast, 10% post, sim distribution as thymoma
 Usually smooth & soft, lobulation indicates malig
 Calc in 50%, nonspecific unless a tooth seen
 #2 pediatric ant mediast mass after lymphoma

Dermoid cyst - may see a fat fluid line on CT, rim calc
 epidermoid if squam lined, dermal if hair & glands

Seminoma - #1 malig, seen primarily in young men
 CT shows lobulations w Hem, Nec & Calc

Choriocarcinoma - also malig & male, elev B-HCG levels
 gynecomastia freq presenting sx

Endodermal Sinus Tumor - yolk sac, secrete a-fetoprotein
 Seen primarily in young men

Thyroid - Actually an INLET lesion, common in adults
 Usually an incidental CXR finding, displaces trachea
 Dyspnea from tracheal deviation is rare
 Goiter - Freq course clumped calc, Nuc study should be 1st
 High CT attenuation due to Iodine content
 Enhance intense & prolonged, >25HU due to hypervasc
 Adenoma - also parathyroid
 Carcinoma - see "thyroid" section of "neuro" file
 Parathyroid Rests - occur in 2%, often within thymus
 May become symptomatic if microadenoma assoc

Lymph Node Enlargement
 Hodgkins Lymphoma - #1 I' mediast mass in adults & kids
 Presentation - bilat hilar, paratracheal & int mammary nodes
 Spreads contiguously, no post involvement
 Never calc if untreated, post Tx calc good prognosis
 CXR - well defined lobulated mass on PA, indistinct on lat
 <10% has lung parenchymal involvement
 30% have assoc plueral eff, no direct plueral invasion
 CT shows freq residual mass P Tx, may recur in 6-12mo
 duel age dist in young and very old
 Linear & irregular nodular densities assoc in lungs

NHL - only 40% involves mediastinum, rarely isolated
 more likely to have multifocal spread, post involved

Benign hyperplasia
 Angioblastic lymphoid adenopathy
 Sarcoidosis - much less common than Hodgkins in ant mediast

Cardiovascular - Epicardial fat pad

Aneurysm of ascending aorta, or sinus of valsalva
Dilated SVC, False aneurysm of com carotid - trauma
Pericardial cyst, Cardiac tumor
Rt Cardiophrenic Angle Mass - fat, aneurysm, diaph
#1 location for pericardial cyst

Mesenchymal Tumors
Lipoma or lipomatosis - uniform w attenuation of -50HU
Bronchogenic cyst, Hemangiomas
Neural tumors & Paraganglioma - pheo and chemodectoma
Morgagni hernia, Leiomyomas, fibromas
Sternal ca or mets

Cystic Hygroma - Lymphangioma, cysts in the fetal neck
congenital lymph blockage, assoc with trisomy, XO