

Image in Medicine

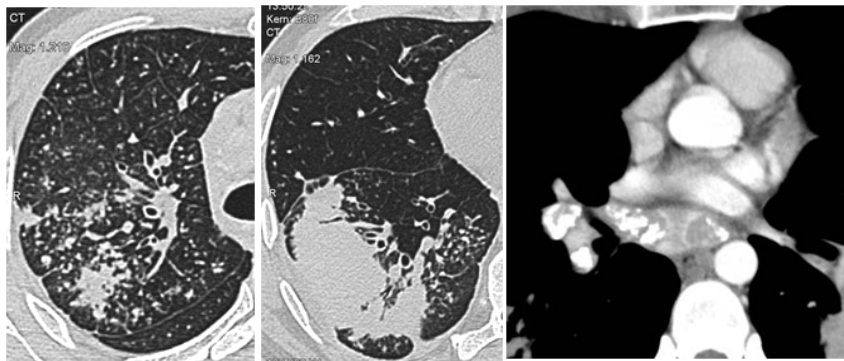
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Quiz 1

CT scan images of the chest of a 51-year-old man with gradually progressive breathlessness

Questions :

- (1) What is the diagnosis?
- (2) What are the imaging features of silicosis?
- (3) What are the differential diagnosis of egg-shell pattern of calcification of lymph nodes ?



Answers :

(1) Multiple centrilobular nodules and confluent dense opacities are seen, predominantly in central distribution in lungs with enlarged mediastinal and hilar lymph nodes showing egg shell pattern of calcification. Findings are in favour silicosis.

(2) Numerous bilateral centrilobular nodules and consolidation are seen in both the lungs, with calcification of nodules. There is predominant upper lobe involvement and perihilar distribution. Calcified hilar and mediastinal lymph nodes are also seen.

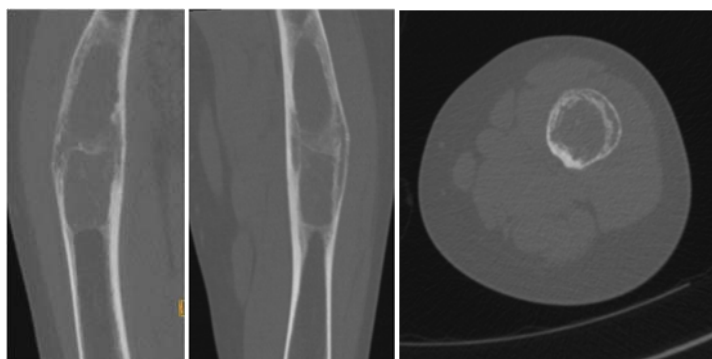
(3) Egg-shell pattern of lymph node calcification is seen in silicosis, sarcoidosis, coal workers' pneumoconiosis, treated lymphoma. Other rare causes are amyloidosis, histoplasmosis.

Quiz 2

A 12-year-old girl presented with painless swelling involving mid thigh since 6 months.

Questions:

- (1) What is the diagnosis?
- (2) What are the common locations of this lesion?
- (3) What are the common associations of fibrous dysplasia?



Answers :

(1) There is bony expansion, remodelling and ground glass matrix involving diaphysis of femur. These imaging findings favour diagnosis of fibrous dysplasia (FD), which was confirmed on biopsy. Fibrous dysplasia is a non-neoplastic tumour like process with replacement of normal bone with fibrous stroma and immature bone.

(2) FD can present as monostotic form (involving only one bone) which is more common or polyostotic form (involving multiple bones). FD usually involves ribs, proximal femur, tibia, craniofacial bones. Polyostotic form is usually unilateral and monomelic.

(3) FD is associated with
 (A) McCune-Albright syndrome – which presents as polyostotic FD with endocrinopathy.
 (B) Maxillary dysplasia – FD with soft tissue myxomas.

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