

Image in Medicine

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Quiz 1

CT scan images of a 23 years old man with 2 weeks history of dyspnea and raised serum IgE levels.

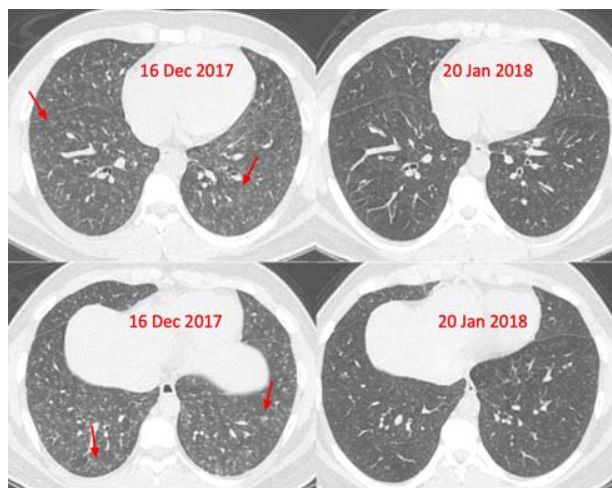
Questions :

- (1) What is the most likely diagnosis in this clinical context ?
- (2) What are the commonly observed imaging features of TPE ?
- (3) What are the other differentials of ill-defined bronchocentric nodules ?

Answers :

(1) Widespread ill-defined bronchocentric nodules are seen diffusely scattered in both the lungs, without any zonal predominance. In view of raised serum IgE levels, these findings are in favour of tropical pulmonary eosinophilia (TPE). Follow up CT scan was done after 3 weeks of diethylcarbamazine (DEC) treatment, which shows significant resolution of the nodules.

(2) Imaging features of TPE are ill-defined bronchocentric nodules, confluent areas of bronchocentric ground glass opacities and smooth interlobular septal



thickening. Other findings such as lymphadenopathy, pleural effusions, cavitation and consolidation are also known to occur.

(3) The other differentials of ill-defined bronchocentric nodules are acute inflammatory hypersensitivity pneumonitis, inflammatory bronchiolitis, respiratory bronchiolitis and infectious bronchiolitis.

Quiz 2

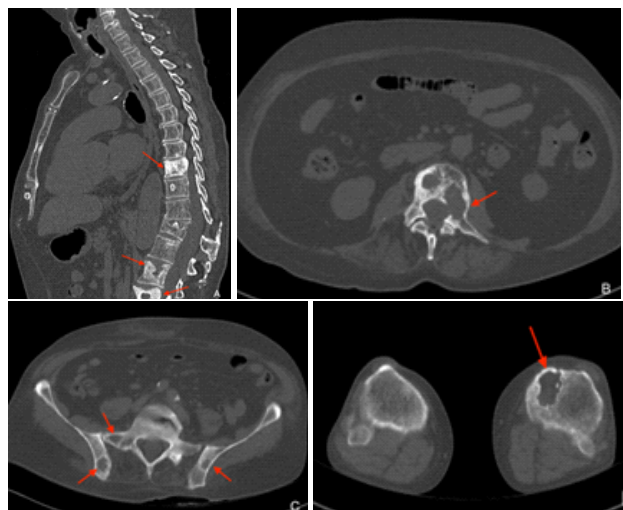
A 70 years old man presented with weight loss, loss of appetite and back pain since 4 months.

Questions:

- (1) What is the diagnosis ?
- (2) What are the common causes of mixed osteolytic-sclerotic metastasis?
- (3) What are the common malignancies that spread to appendicular skeleton?

Answers :

(1) Multiple mixed osteolytic and sclerotic lesions are seen involving vertebrae, pelvic bones and tibia. These imaging findings favour diagnosis of metastasis which was confirmed on biopsy. The primary malignancy was carcinoma of prostate, which was also confirmed on Prostate- specific membrane antigen (PSMA) scan.



(2) Mixed osteolytic and sclerotic bone metastasis are commonly seen in malignancy of breast, lung, testis, prostate, cervix and ganglioneuroblastoma.

(3) Metastasis to appendicular skeleton is rare, however it is seen in malignancy of lung, breast, renal and prostate.

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