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Atypical Presentation of Tuberculous Pleural Effusion.

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ABSTRACT

Tuberculosis is a major public health problem in developing countries. Pleural effusion is the second most common presentation of extra-pulmonary tuberculosis. Diagnosis of pleural effusion can be established by demonstration of pleural fluid examination and pleural biopsy. Here is a case presented with hemorrhagic pleural effusion with lytic lesions in CT thorax suggesting malignancy which turned out to be tuberculous effusion.
Keywords: Tuberculosis, Pleural Effusion, Malignant Effusion, Metastases

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CASE PRESENTATION

A middle aged woman presented with complaints of dull lower back ache, which was aggravated on bending for past 3 months. Breathlessness of grade1 to 2,releived by lying right side. cough with minimal expectoration which contained yellow colored sputum for about a week. Low grade intermittent fever for2 days .She is a known case of type 2 diabetes mellitus for about 10 years on OHA's and insulin. she is a known hypertensive for 2 years well controlled with anti-hypertensives.

On examination her hemodynamic status was normal. On examination she had tenderness over D11, D12 area. On examination of respiratory system, chest wall movements decreased on right hemithorax, vocal fermitus and vocal resonance decreased o right side, on percussion stony dullness present on right side below 3rd intercostal space upto liver margin, on auscultation breath sounds not heared at right side below 3 rd intercostal space.Both X ray and ultrasound[3,4] [7-9] showed massive pieural effusion[2]. Other system examination was normal.

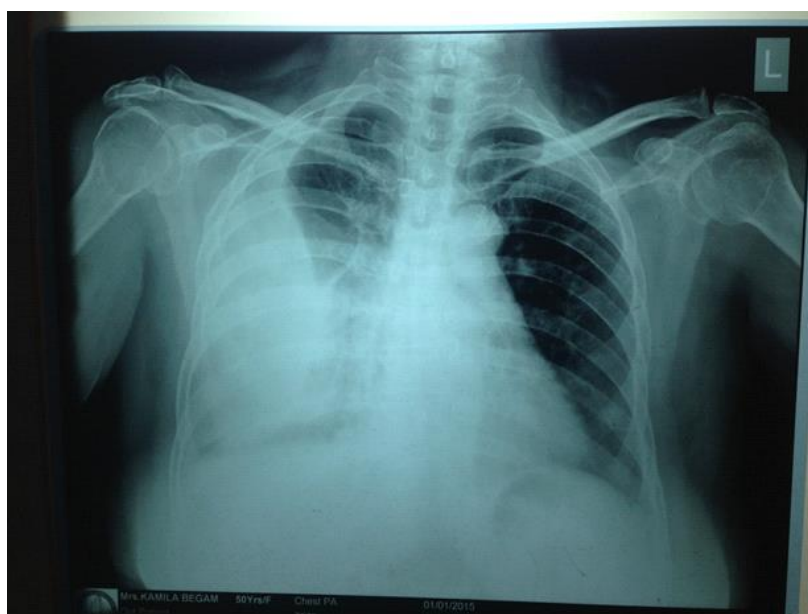
Blood investigations were all with in normal limits except for moderate anemia with Hb 7.6,perpheral smear showed predominantly microcytic hypochromic RBC's with mild anisocytosis.

CT thorax[6] showed multiple destructive osteolytic lesions in D2,D10,D11,D12 vertebrae involving transverse process, pedicle,lamina with associated pre and para vertebral soft tissue component, adjacent articular margins with associated soft tissue component of ribs involved. possiblity of metastases to be considered.

Pleural fluid was hemorragic with ADA levels of about 52.80. cytology showed lymphocyte predominant sero fibrinous back ground s/o chronic inflammatory pathology. since pleural fluid was hemorrhagic and CT thorax reports were suggestive of bony metastasis intense search for primary malignancy was made. Tumour markers turned out to be negative. Meanwhile patient's diabetes was brought under control, Orthopedician opinion was obtained MRI spine was taken which was suggestive of Tuberculous[1] spine.patient was started on antituberculous treatment on regular follow up .Patient was symptamatically better and her LFT's were normal. Size of pleural effusion[2] decreased and her bony pain is also symptamatically better.

DISCUSSION

X ray showing right sided pleural effusion



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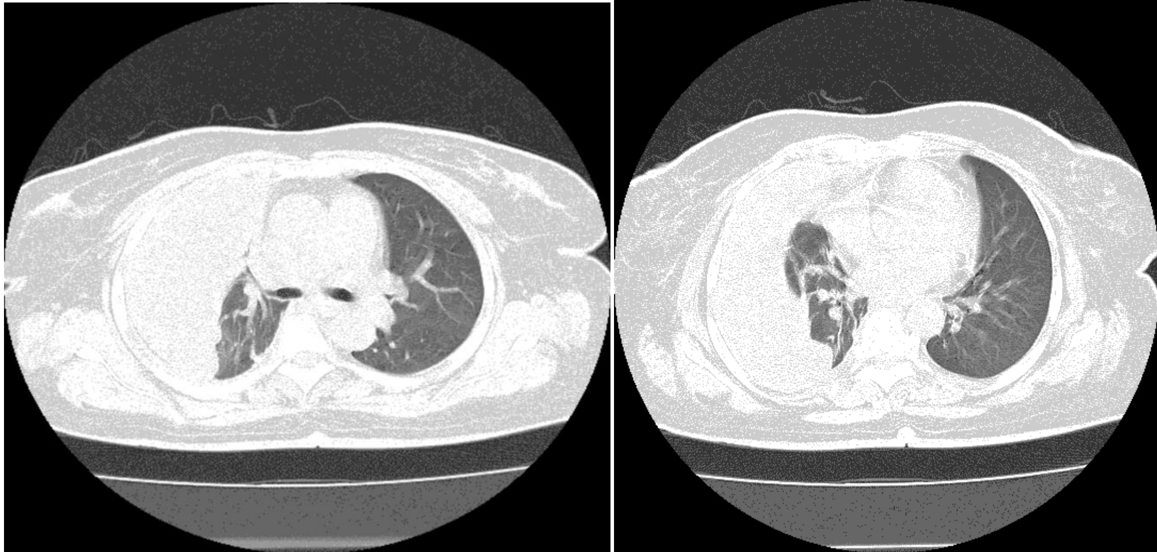
	TUBERCULOUS PLEURAL EFFUSION	MALIGNANT PLERURAL EFFUSION
Age	Can occur at any age	Usually above 50 years of age
Risk factor	Contact history	Exposure to smoking, fumes , asbestos , vinyl chloride, family history .
Symptoms	Cough with expectoration	Symptoms related to primary site of the tumour .
Pleural fluid gross	Mostly amber colored may be haemorrhagic .	Mostly haemorrhagic
P.F . Character	Moderate effsion	Recurrent (fills with 1 month),rapid and massive .
Cytology	Lymphocyte predominant.	Malignant cytology
Bone involvement	Potts spine, other bony structure including carpal bones	Bone metastasis is usually vertebra ,and other long hones



CT THORAX

Multiple destructive osteolytic lesions in D2,D10,D11 and D12 vertebrae involving the transverse process, pedicle, lamina with associated pre and para vertebral soft tissue component. Adjacent articular margins with associated soft tissue component of the ribs also involved possiblity of metastases to be considered

Since the pleural fluid was haemorrhagic and the CT thorax [5] reports were suggestive of bony metastasis.

Intense search for primary malignancy were made tumour markers were negative.

Meanwhile the patients diabetes was brought under control and Orthopaedician opinion was taken.MRI of spine was taken which was suggestive of TB spine.

MRI

Lytic sclerotic destruction of D2,D11,D12

Vertebrae with abnormal signal intensity D11-D12 disc and prevertebral soft tissue showing rim enhancement.

Lytic destruction of posterior elements of D8,D9,D10 vertebrae and posterior aspect of 9th rib with associated left paraspinal soft tissue predominantly rim enhancement

POSSIBLITIES

- Infective
- Possiblity of metastases less likely

CONCLUSION

Hemorrhagic pleural effusion is not a common presentation of tuberculosis. Since it is common in malignancy at first invesgations done to rule out malignancy. This discussion is focus on atypical presentation of tuberculous pleural effusion.

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