Check for updates

Radiological Findings of a 62-year-old Male with Loss of Weight and Appetite

Matthew Ng, *MMed (FM), FCFPS*

Bright Vision Hospital, Singapore

ABSTRACT

Plain X-rays are still important basic first-line investigations for the family physician practising in the private and public sectors. They are useful in the detection of pathology in the skeletal system as well as some disease processes in the soft tissues. Notable examples include chest X-rays which can be used to identify diseases such as pneumonia, carcinoma of the lung or pulmonary oedema. The chest X-ray presented here is of a 62-year-old man presenting with a 3-month history of loss of weight and appetite as well as a chronic cough.

Keywords: chest X-ray, chronic cough, family physician, loss of weight

CLINICAL PRESENTATION

Mr Ng is a 62-year-old unemployed male who presented with a weight loss of 10kg over a period of 3 months and a loss of appetite. He could not finish a packet of food at each meal as he felt nauseous. He needed to lie down in bed the whole day as he tired easily and felt sleepy.

There were no gastrointestinal symptoms such as dyspepsia, diarrhoea or bleeding. There was also no complaint of fever. The patient has smoked about 2–3 sticks of cigarettes per day for the past 20 years, and has a background of chronic cough which he attributed to his smoking. He has a history of pulmonary tuberculosis (TB) and has had laparotomy, the reason for which he could not remember. Clinically, he was frail and thin, weighing 53kg. His BMI (body mass index) was calculated to be 19.5. He was afebrile and was not pale. His blood pressure was 80/60mmHg on sitting, and pulse rate was 65/min. There is no significant postural drop. His trachea was noted to be deviated but there were no abnormal sounds on auscultation of the lungs. He was admitted for further investigations. Initial tests ordered were full blood count, electrolytes, random blood sugar and HIV screening. They were all normal. Chest X-rays were also ordered in the initial tests (Fig. 1).

RADIOLOGICAL FINDINGS

There were multiple thick-walled cavitating consolidative areas with multiple nodular infiltrates distributed in both upper lobes. The rest of the lung fields demonstrate reticulnodular shadowing with scarring of the left lower zone. The trachea was deviated to the right.

The features were suggestive of pulmonary tuberculosis. Staining for acid fast bacteria was positive and Mycobacterium Tuberculosis Complex DNA was detected on polymerase chain reaction tests.

CLINICAL PROGRESS

The patient was started on anti-tuberculosis treatment with pyrazinamide, ethambutol, rifampicin and isoniazid. The patient was on a standard 4-drug regime which was reduced to 2 after the 2-month initiation phase of the treatment[2]. He completed 9 months of therapy and a check X-ray done showed resolution of the active disease disease (Fig. 2) but there was abnormal lung

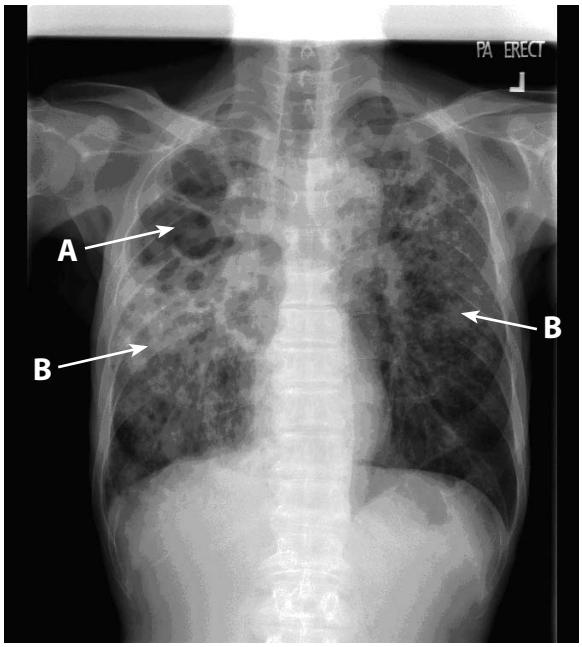


Fig. 1. Plain chest X-ray, PA view. Films taken on initial presentation showed Multiple Bullae (A) in the right mid and lower zones with surrounding fibrosis. The rest of the lung fields demonstrate reticulnodular shadowing (B) with scarring of the left lower zone.

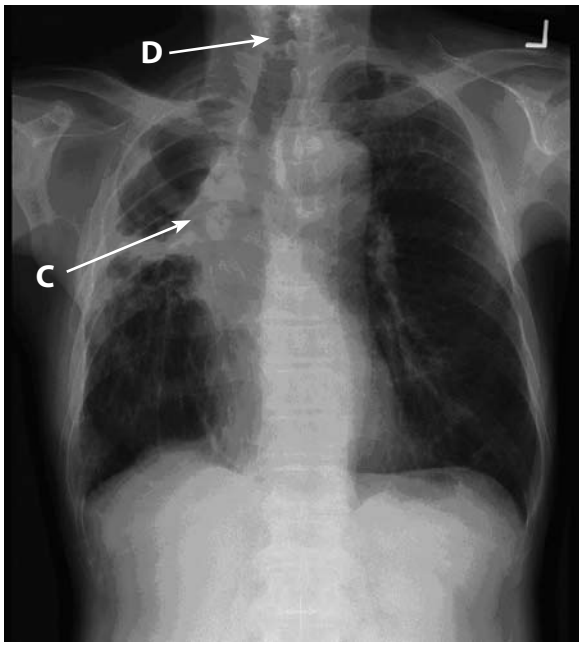


Fig. 2. Chest X-ray, PA view. Film taken after 9 months of therapy. Note the fibrosis on the right upper lobe (C) and the deviation of the trachea to the right (D).

parenchyma noted with a very large thick-walled cavity replacing the right upper lobe. Mediastinum has also shifted a little to the right because of underlying fibrotic changes.

DISCUSSION

Pulmonary tuberculosis is not as uncommon as one would think in a developed country like Singapore. The Ministry of Health (MOH) reported that there were 1,478 new cases of TB among Singapore residents in 2010, slightly higher than the 1,442 cases in 2009. The number of non-residents with TB was 550 compared to 524 in 2009[2].

Making a clinical diagnosis of pulmonary TB can sometimes be challenging since they do have atypical presentations. Patients may not have the classical symptoms of fever, haemoptysis or obvious cough. Physical examination also did not suggest any features of tuberculosis. Moreover, the clinical picture is often confounded by the fact that many are elderly male smokers who have a background cough presumably due to smoking.

The non specific presentation of loss of weight and appetite can present as a diagnostic challenge. In this day and age, it is not unusual to investigate such a patient extensively, and a diagnosis would be made. However, performing extensive investigations is expensive, and also puts patient at risks — risks of false positives and its attending problems, and risk of invasive tests. A phase approach, as illustrated in the case here would be better. This patient was diagnosed with simple laboratory and radiological tools.

The chest X-ray is one of the most frequently requested investigations both in the institution and the outpatient setting. It is commonly included as part of the pre-employment check-up, health screenings, and occupational health surveillance and before transfer to long-term care facilities. It is important for the physician who ordered the X-ray to be able to interpret them[3].

REFERENCES

1. Ong A, Goh KT, editors. A guideline on infectious diseases of public health importance in Singapore [Internet]. Singapore: Ministry of Health; 2011 Mar [cited 2011 Sep]. 172 p. Available from: http://www.moh.gov.sg/mohcorp/publications.aspx?id=15850.
2. Ministry of Health. Update on Tuberculosis(TB) situation in Singapore [Internet]. Singapore: Ministry of Health; 2011 Sep 22 [cited 2011 Sep]. Available from: http://www.moh.gov.sg/mohcorp/statistics.aspx?id=25332.
3. Au-Yong I, Au-Yong A, Broderick N. On-call X-rays made easy. 1st ed. Oxford, UK: Churchill Livingstone Elsevier; 2010. 304 p.