Egyptian Journal of Chest Diseases and Tuberculosis (2013) 62, 647-649



The Egyptian Society of Chest Diseases and Tuberculosis

Egyptian Journal of Chest Diseases and Tuberculosis

www.elsevier.com/locate/ejcdt



# Pulmonary tuberculosis in its pseudotumoral form; one new case

L. Herrak \*, N. Amangar, K. Berri, M. El Begnani, M. El Ftouh, M.T. El Fassy Fihry

Department of Pneumology, Chu Ibn Sina, Rabat, Morocco

Received 1 August 2013; accepted 12 August 2013 Available online 25 September 2013

### **KEYWORDS**

Tuberculosis; Lung tumor **Abstract** Pulmonary tuberculosis in its pseudo tumoral form is a rare entity. This pseudo tumor is suggested by a radiological parenchymal lesion or neoplastic-like presence in bronchoscopy of a bud or lung infiltration. The diagnosis is confirmed by bacteriological and/or different histological samples. We report a patient aged 26 with no history conditions, no notion of contagious tuberculosis and without toxic habits, who reports with three months isolated type left chest pain operating in a context of significant weight loss but not encrypted, evening fever and altered general condition. The clinical syndrome is a condensation of apical left and the rest of the examination is unremarkable. The chest radiograph shows an opaque round, dense and homogeneous apical left chest scan objective mass density tissue. Bronchoscopy was performed of a small bud at the apex of the segmental left upper lobe whose biopsy was inconclusive. Transparietal puncture with histological study confirmed the diagnosis of tuberculosis should be considered in any tumor-like lung, as well as to step up bronchoscopic radiation, especially in an epidemiological context and is suggestive. This will allow early treatment of tuberculosis. The aim of our study is to report the rare and special appearance of pulmonary tuberculosis pseudo-tumoral form in imaging.

© 2013 The Egyptian Society of Chest Diseases and Tuberculosis. Production and hosting by Elsevier B.V. Open access under CC BY-NC-ND license.

\* Corresponding author. Address: JAAFER Essediq Street, Palm II Immeuble "C", Apt 8 Agdal, Rabat, Morocco. Tel.: +212 666 65 64 36.

E-mail address: herraklaila@yahoo.fr (L. Herrak).

Peer review under responsibility of The Egyptian Society of Chest Diseases and Tuberculosis.

ELSEVIER Production and hosting by Elsevier

# Introduction

Pulmonary tuberculosis remains a health problem in countries with high prevalence. It usually results in radiological images evocative at the vertices and territories later, but it can sometimes be atypical of radiological aspects of making a pseudo tumoral form posing the problem of differential diagnosis with pulmonary neoplasia leading to a delayed diagnosis [1]. We report a case of pulmonary tuberculosis in its pseudo-tumoral form.

0422-7638 © 2013 The Egyptian Society of Chest Diseases and Tuberculosis. Production and hosting by Elsevier B.V. Open access under CC BY-NC-ND license.http://dx.doi.org/10.1016/j.ejcdt.2013.08.007

## Observation

This report is about a patient aged 26 years, never treated for tuberculosis, with no notion of contagioustuberculosis and no toxic habits who had 3 months' isolated type left chest pain of stitch to shoulder after irradiation with brachial neuralgia, without other signs associated with respiratory tract or extra, all operating in a context of unencrypted fever, night sweats, weight loss important but not encrypted and alteration of general condition.

Clinical examination found a patient eupneique, afebrile, pale conjunctiva slightly discolored, no clubbing and no Claude Berner Omer syndrome. The review of pleuro pulmonary syndrome shows a condensation apical left without pain on palpation of the exquisite coastline. The rest of the physical examination is normal and the lymph nodes are free.

Chest X-ray opacity front objective is left grossly rounded apical dense and homogeneous tumour(Figure 1), the chest CT scan performed on our patient showed a left apical tissue mass, with some areas of necrosis. This mass in the artery completely sheathes the left subclavian, and adheres to the aortic arch, with infiltration of the pulmonary artery window. The contralateral normal lung parenchyma (Figure 2). Bronchoscopy is performed on a small bud at the apex of the sub segmental bronchus of apicodorsale Culminal whose biopsies with histology were returned for revisions of non-specific fibrous tissue with no evidence of specificity and without tumor.

Laboratory tests found 14,800/mm<sup>3</sup> leukocytes, an inflammatory syndrome with an erythrocyte sedimentation rate of 125 mm/first hour, C reactive protein (CRP) à188 mg/l, and an elevated fibrinogen level of 8.90 g/l. Protein electrophoresis shows a profile consistent with an inflammatory syndrome associated with a significant increase in polyclonal immunoglobulin. Stock renal, hepatic, phosphorus, and blood dyscrasias were unremarkable. The search for BK in the sputum is

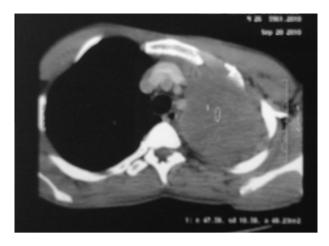


Figure 2 CT scan: left apical tissue mass.

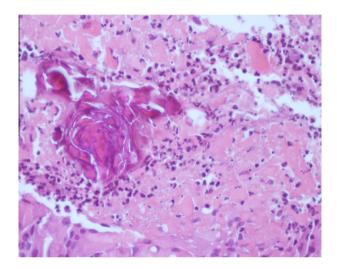


Figure 3 Histology: epithelial giant cell granuloma with caseous necrosis.



Figure 1 Chest X-ray: opacity round, dense and homogeneous.

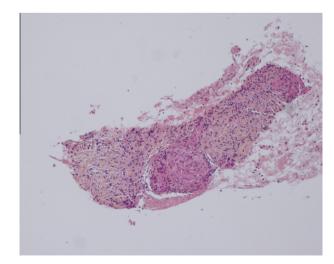


Figure 4 Histology: epithelial giant cell granuloma with caseous necrosis.

done three times and the product of bronchial aspiration is negative.

We completed a puncture transparietal that withdrew whitish material which pathological study confirmed as TB by identifying follicular epithelial giant cell with caseous necrosis, and no suspicious cells (Figs. 3 and 4). The diagnosis of tuberculosis is selected as pseudo tumor and the patient is on treatment based on four antibacillaires rifampicin (R), Izoniaside (H), Pyrazinamide (Z) and Ethambutol (E) at doses appropriate for weight for a period of 6 months with clinical, biological and radiological surveillance.

#### Discussion

Pseudo-tumoral forms of tuberculosis are a rare entity even in highly endemic countries [2].

Our observation illustrates the fact that there are no pathognomonic radiological pictures of pulmonary tuberculosis and we must necessarily resort to a bacteriological and/or histological examination before asserting or rejecting the origin of tuberculosis as a pulmonary opacity [3]. While in endemic areas, certain images are so common that they evoke the diagnosis of tuberculosis, there are still diagnostic errors by default because certain images, by their appearance or location, are rather reminiscent of other conditions especially lung cancer and tuberculosis especially as the patient is a major tobacco growersometimes escalating to the thorachotomie. CARLI et al. reported 115 cases of tuberculosis in a study of the Ivory Coast [4].

The diagnosis of psuedotuberculosis tuberculosis is often delayed reflecting the diagnostic difficulties, it varies from 4 to 10 weeks according to the authors [5,6]. The clinical signs are absent or nonspecific. Microscopic examination of the sputum is often negative even for lesions excavated, this is related to nature and poorly oxygenated solid caseous lesions in psuedotumoral tuberculosis [6,7]. The multiplication of the bacilli is slow to the point of giving them a quiescent character justifying the routine use of cultures on Löwenstein–Jensen to increase the performance of the bacteriological analysis. Endoscopic aspects of psuedotumoral bronchopulmonary tuberculosis can simulate those of a bronchial carcinoma. These forms are in fact rare endobronchial types resulting in a bud (in the case of our patient), an ulcer or bronchial infiltration [8].

Radiological aspects can refer to malignancy showing a roughly rounded opacity on a chest radiograph. Aspects are the type of scanner nodule or mass whose size is variable, the shape may be regular or spiculated taking the contrast of peripherally [3].

Mediastinal lymphadenopathy is rare in post-primary tuberculosis or is seen only in 5% of cases with peripheral enhancement reflecting the central necrosis suggestive of tuberculosis [9] but this aspect is not specific since 'It can be observed in a lymphoma or metastatic carcinoma'.

#### Conclusion

Pulmonary tuberculosis will not cease to mislead the clinician by its great clinical and radiological polymorphism, it should be considered in symptoms lasting even if the radiological picture is atypical especially in a non-smoker. Its prognosis is generally favorable.

The lesson we draw from this observation is that, regardless of the radiographic image of a thoracic and clinical history, always think of tuberculosis in the differential diagnosis until proven otherwise, especially in an endemic area or before a suggestive epidemiological context and this will enable early treatment of the disease.

#### Conflict of interest

None declared.

#### References

- [1] M. Aakk, B. Amara, H. Rahimi, F.Z. Benjelloun, S. El Hord, H. Mahla, R. El Bouzidi, C.M. Benjelloun, Tuberculosis bronchial pseudotumoral. Apropos of a case, Med. Maghreb 151 (2007) 40– 42.
- [2] R. Franco, M.A. Santana, J.C. Coello filho, L. Jorgele, Pereirasilva. Pseudotumoral form of primary progressive tuberculosis: a diagnosis to be considered, Braz. J. Infect. Dis. 7 (2) (2003) 166–170.
- [3] J. M'boussa, J. Kokolo, N.G. Thau, D. Bodzongo, Pulmonary tuberculosis. Aspect of pseudo-tumor.
- [4] P. Carli, F. Romand, Current clinical aspects of tuberculosis in an internal medicine service (About 115 cases observed in Korhogo), Med. African Black 36 (2) (1989) 102-III.
- [5] M.T. Ben Mile, B. Zakham, F. Cheniti, A. Tenabane, T. El Gharbi, Tuberculosis chest pseudoneoplasiques, Sem. Hop. Paris 65 (1989) 2735–2737.
- [6] M.J. Cherian, M.H. Dahniya, N.F. Al Marzouk, A. Abel, S. Bader, Pulmonary tuberculosis presenting as mass lesions and neoplasms in adults simulating, Aust. Radiol. 42 (1998) 303–308.
- [7] T. Ishida, H. Yokoyama, S. Kaneko, Pulmonary tuberculoma and indications for surgery: radiographic and clinicopathological analysis, Respir. Med. 86 (1992) 431–436.
- [8] Y. Gadioler, J.Y. Bayle, M. Perol, J.C. Guerin, Bronchial tuberculosis. About four cases, Pneumol. Rev. Clin. 46 (1990) 103–108.
- [9] A. Zidi, S. Hantous, I. Mestiri, M. Ben, Mile aspescts CT pseudotumoral lung tuberculosis, J. Radiol. 87 (2006) 363–366.