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Pleural Pseudo-tumor Tuberculosis

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The pseudotumoral form of bronchopulmonary tuberculosis is rare. It can manifestas a bronchial, pulmonary, or pleural lesion, suggesting neoplasia, which makes the diagnosis difficult. A 23-year-old female patient was referred to our department for management of a right thoracic mass incidentally found on a chest Computed Tomography (CT). She reported intermittent right-sided chest pain and fever. Clinical examination was normal. Chest CT showed a well-defined, homogenous right low pleuro-parietal mass measured 50x50x24 mm with a peripheral enhancement of contrast without bone invasion, pleural effusion, parenchymal lesion, or mediastinal lymph nodes (figure 1 A, B, C). Routine blood tests were normal except for a high erythrocyte sedimentation rate (ESR) at 32 mm/hr. Bacteriological testing for acid-fast bacilli and GeneXpert were negative in sputum. Bronchoscopy and percutaneous CT-guided needle-aspiration didn't allow a pathological diagnosis. The patient underwent an elective right posterolateral thoracotomy. Pre-operative findings noted capsulated fluids mass with the presence of caseous necrosis after the accidental opening of the lesion (figure 2), the mass was resected completely. Bacteriology revealed Bacillus of Koch in caseous liquid culture and pathological exams revealed the presence of areas of caseous necrosis with epithelioid granulomas, which were consistent with tuberculosis infection. The patient received anti-tuberculous chemotherapy (2RHZ + 4RH) with a good

clinical and radiological resolution (figure 3). Patient consent was obtained for publication purposes.

Comment

The incidence of pulmonary pseudotumor tuberculosis varies from 2 to 4%.[1-3] Clinical and radiological manifestations are not specific and may suggest malignancy, bronchoscopic explorations can be negative. The differential diagnosis is lung cancer; metastasis, localized mesothelioma, or benign disease like inflammatory myofibroblastic tumors. Surgical removal of the mass through thoracoscopic or conventional approach is the best approach when we fail to establish a definite diagnosis and for management of complications like heamoptysis.[4-5]

Authors' Contribution

MA conceptualized and drafted the manuscript. ME interpreted the data in the manuscript. MO interpreted the pathological data. EHK contributed to drafting and revising the manuscript. All authors approved the final version of the manuscript.

References

1. Arul P, Varghese RG, Ramdas A. Pleural tuberculosis mimicking inflammatory pseudotumour. J Clin DiagnRes2013; 7(4):709-11. DOI: 10.7860/JCDR/2013/4382.2888

2. Le Guillou F, Hubscher P, Cuvelier A, Quieffin J, Guyonnaud CD, El Haite A et al. Bilateral pleural thickening pseudo-tumour due to tuberculosis. Rev Mal Respir 2002; 19(4):515-7. PMID: 12417867

3. Chaouch N, Saad S, Zarrouk M, Racil H, Cheikh Rouhou S et al. Diagnostic difficulty in bronchopulmonary tuberculous pseudotumor. Rev Mal Respir 2011; 28(1):9-13. DOI: 10.1016/j.rmr.2010.05.014

4. Schweigert M, Dubecz A, Beron M, Ofner D, Stein HJ. Pulmonary infections imitating lung cancer: clinical presentation and therapeutical approach.Ir J Med Sci. 2013; 182(1):73-80. DOI: 10.1007/s11845-012-0831-8

5. Ishida T, Yokoyama H, Kaneko S, Sugio K, Sugimachi K, Hara N. Pulmonary tuberculoma and indications for surgery: radiographic and clinicopathological analysis. Respir Med 1992; 86:431-6. DOI: 10.1016/s0954-6111(06)80011-9

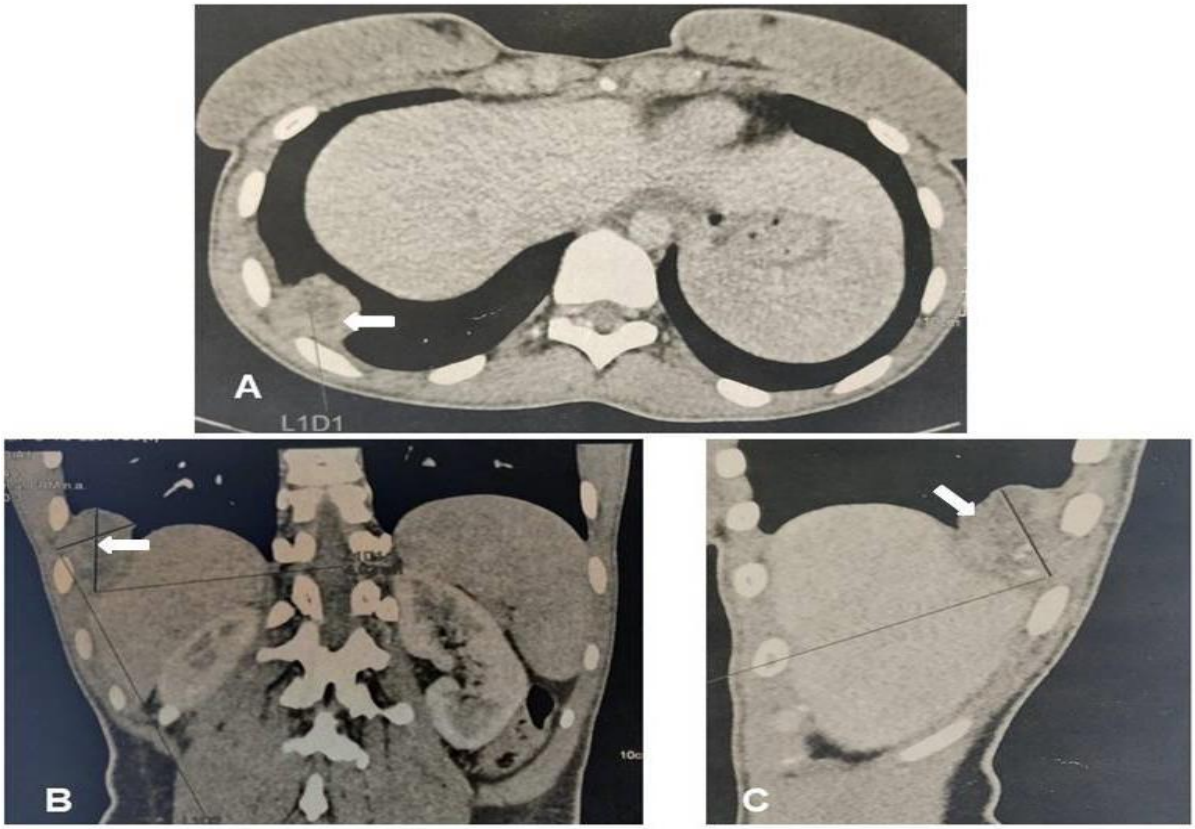

Figure 1: CT scan of the thorax showing (**A: axial B: frontal, C: coronal**) pleural right based mass lesion with calcification and irregular margins.

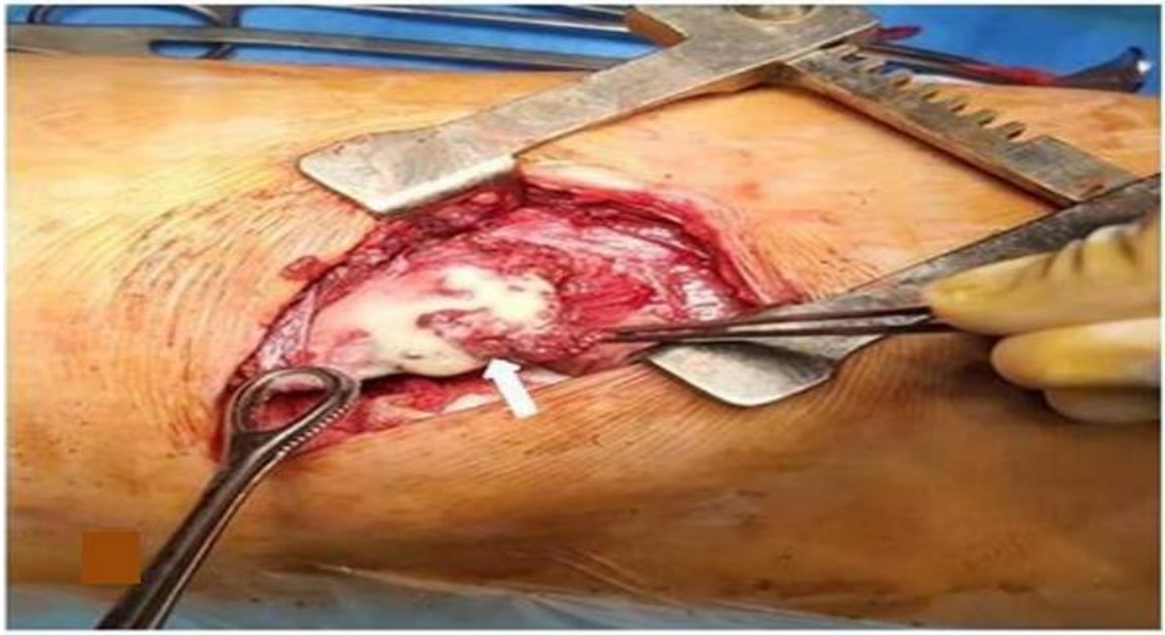

Figure 2: Operative view showing caseous necrosis after opening of the basal mass.

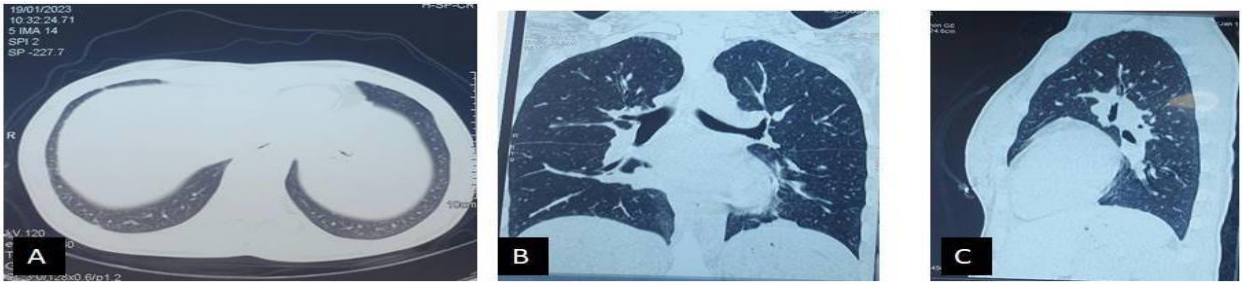

Figure 3: CT scan of the thorax 2 years later showing (**A: axial, B: frontal, C: coronal**) no signs of recurrence or remaining infection.