Necrotising Pneumonia due to Finegoldia Magna

Neumonía necrotizante por Finegoldia magna

To the Editor:

Necrotizing pneumonia in an infection of the pulmonary parenchyma that is characterized, from a radiological standpoint, by the existence of a condensation with multiple cavitations of less than 1 cm. The distinction between necrotizing pneumonia and pulmonary abscess is not excessively interesting clinically as they often represent different evolutive stages of one same process. We present a case of necrotizing pneumonia due to *Finegoldia magna* that, to our knowledge, has not yet been reported in the literature. This is probably due to the need for special techniques for sample collection in order to avoid the contamination with flora from the oral cavity and ensure isolation from anaerobic microorganisms.

The patient is a 54-year-old man, ex-smoker with a previous 30 packs/year cigarette habit up until 10 years ago, and a drinker of 100 g of ethanol/day up until 2 months ago. He arrived at our consultation due to cough with mucous expectoration, which had evolved over 8 weeks and was occasionally hemoptoic, initially associated with fever and hyporexia and accompanied by an unquantified weight loss. Chest radiograph revealed infiltrate in the lower left lobe with a slight loss in volume. We ordered 3 sputum bacilloscopes (which were negative) and treatment was started with moxifloxacin (400 mg/day for 7 days). One month later, there was no radiological improvement, therefore a thoracic CT scan was done, where we observed heterogeneous condensation with loss in volume of the lower left lobe, with small neumatoceles, not associated with hilar mass and accompanied by centroacinar emphysema in the upper lobes (fig. 1).

We decided to admit the patient to hospital as he had presented mild hemoptysis during the previous 10 days. Physical examination showed a fever of 38.3 °C and a septic appearance of the mouth. Bronchoscopy revealed whitish secretions at the entrance of the left segment 6. DNA amplification of *Mycobacterium tuberculosis* was negative. Standard culture was reported as mixed oropharyngeal flora and on the Gram tinction, gram-positive cocci were observed. We obtained growth of more than 1.000 ufc/ml of *Finegoldia magna* in the sample collected by

telescoping catheter; the fungal culture was negative. A one-week treatment with 500 mg of levofloxacin was started. The patient evolved favorably and was discharged one week after having been admitted with amoxicillin/clavulanic acid (2 g/12 h for 8 weeks) given the antibiogram results. Two months later at the outpatient consultation, the patient was asymptomatic, had gained weight and the resolution of the clinical manifestations was confirmed radiologically.

Necrotizing pneumonia and lung abscess share the same microbiological etiology. The most-frequently involved germs are anaerobes of the oropharyngeal flora: *Peptostreptococcus, Prevotella, Porphyromonas, Fusobacterium,* as well as mixed anaerobic and aerobic flora such as *Streptococcus milleri* and *Staphylococcus aureus*.¹

Finegoldia magna, formerly known as Peptostreptococcus magnus, is the most common gram-positive anaerobic coccus followed by P. asaccharolyticus.² Peptostreptococcus forms part of the normal human flora, colonizing the skin, mouth, gastrointestinal tract, vagina and urethra and the infection can occur in any part of the body, including head, neck, CNS, thorax, abdomen and pelvis.^{3,4} The predisposing conditions for infection are immunodeficiency, diabetes, steroid treatment, previous surgery, neoplasia and others.⁵ The patient described in this article was a drinker and ex-smoker with poor oral hygiene. The best method for obtaining samples is by bronchoscopy with protected brush or bronchoalveolar lavage. In most cases, Finegoldia is sensitive to many antibiotics⁶: beta-lactams, quinolones, vancomycin, lincosamides, and only in exceptional cases is surgical intervention necessary (abscess drainage, debridement of necrotic tissue, decompression).

In short, the description of this case allows us to add necrotizing pneumonia to the spectrum of clinical infections that *Finegoldia magna* can cause.

References

- Takayanagi N, Kagiyama N, Ishiguro T, et al. Etiology and outcome of communityacquired lung abscess. Respiration. 2010;80:98-105.
- Brook I. Recovery of anaerobic bacteria from clinical specimens in 12 years at two military hospitals. J Clin Microbiol. 1988;26:1181-8.
- 3. Bourgault A, Rosenblatt J, Fitzgerald R. Peptococcus magnus: a significant human pathogen. Ann Intern Med. 1980;93:244-8.
- 4. Finegold S.M. Anaerobic bacteria in human disease. New York: Academic Press; 1977. p. 433.





Figure 1. Chest x-ray and thoracic computed tomography showing the presence of a consolidation with cavitations in its interior, located in the lower left lobe.

- Solen K, Matta M, Annie B, et al. Postoperative mediastinitis due to Finegoldia magna with negative blood cultures. J Clin Microbiol. 2009;12:4180-2.
- Stein G, Schooley S, Tyrrell K, et al. Human serum activity of telithromycin, azithromycin and amoxicillin/clavulanate against common aerobic and anaerobic respiratory pathogens. Int J Antimicrob Agents Jan. 2007;29:39-43.

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Giant pulmonary tuberculoma: atypical form of presentation of primary tuberculosis in childhood

Tuberculoma pulmonar gigante: forma atípica de presentación de tuberculosis primaria en la infancia

To the Editor:

A tuberculoma is a very infrequent form of presentation of pulmonary tuberculosis (TB)¹ in children. It is a well-defined mass or nodule located in the lung caused by *Mycobacterium tuberculosis*.²⁻⁴ We present a case of a giant tuberculoma as a form of presentation of primary pulmonary TB.

The patient is a 6-year-old boy with no notable personal history and a family history of pulmonary TB in a grandmother who had died two years earlier and his mother and maternal aunts who were successfully treated for pulmonary TB, with no known sensitivity. He referred mild weight loss and anorexia during the previous three months. Mantoux was positive (20 mm) and anteroposterior chest radiograph (fig. 1A) showed a lung consolidation in the middle lobe with right paratracheal widening and an emphysematous lesion in the right hemithorax. Lung HRCT (fig. 1B-C) revealed right mediastinal adenopathies and a well-defined, partially-calcified loculated collection with a necrotic appearance, compatible with a large-size tuberculoma of the lung (3.5 \times 4 cm) and adjacent images of pulmonary consolidation with atelectasis in the right lower lobe and middle lobe and lobar emphysema due to endobronchial valvular effect. Given this situation, pulmonary TB treatment was established with isoniazid (5 mg/kg/day), rifampicin (10 mg/kg/day) and pyrazinamide (20 mg/kg/day) and exeresis of the pulmonary nodule was performed by thoracotomy. The anatomopathologic study confirmed the diagnosis. After surgery, the patient completed 6 months of anti-tuberculosis treatment, with a favorable clinicalradiological evolution.

A tuberculoma is one of the most common benign pulmonary nodules. It represents 5-24% of resected solitary pulmonary nodules, ^{5,6} with a size that can vary from 1 to 10 cm in diameter. ^{2,3,6} Tuberculomas are normally found as single nodules, ^{3,5} although multiple nodules are not infrequent. ⁵ They may include a cavity or calcification ^{2,3,6} and

their edges are usually smooth and sharp.^{3,5} Their usual location is in the upper lobes.^{2,3} Although pulmonary TB constitutes 80-90% of all TB infections, pulmonary tuberculoma is an infrequent complication,3 although it could be a manifestation of primary as well as postprimary TB.3 Histologically, tuberculomas are masses encapsulated by multiple concentric layers of connective tissue with no inflammation or peripheral propagation.3 For diagnosis, it is frequently necessary to recur to invasive processes such as puncture and aspiration or open thoracotomy, due to the possibility of accompanying malignant processes,³ such as lung cancer.⁵ Therefore, lung HRCT with contrast enhancement can be useful in identifying lung cancer and tuberculoma in the same lesion and also in evaluating the activity of the tuberculoma.5 Treatment is based on antituberculosis medication, sometimes accompanied by surgery.5 anti-tuberculosis treatment, some bacilli-negative tuberculomas do not decrease in size and may even increase, making it difficult to decide on an alternative treatment.4 PET F-18 fluoro-2deoxy-D-glucose (FDG-PET) can be useful in monitoring the response to anti-tuberculosis drugs.4 Depending on the course of evolution, without treatment tuberculomas can be progressive, stable or regressive.3 In general most tuberculomas of the lung shrink in size, even after the conclusion of anti-tuberculosis treatment.3 Sometimes it is necessary to resect the tuberculomas by means of thoracotomy or thoracoscopy.5 The benefits of said resection include conclusive differential diagnosis, determination of future therapeutic strategies and reduction of the dosage and duration of anti-tuberculosis treatment.⁵ In short, we present the case of a giant tuberculoma as an atypical clinical form of primary tuberculosis infection, with good evolution after surgical resection and treatment with antituberculosis drugs.

References

- 1. Curtis AB, Ridzon R, Vogel R, McDonough S, Hargreaves J, Ferry J, et al. Extensive transmission of Mycobacterium tuberculosis from a child. N Engl J Med. 1999;341:1491-5.
- 2. Smith KC. Tuberculosis in children. Curr Probl Pediatr. 2001;31:5-30.
- 3. Varteresian-Karanfil L, Josephson A, Fikrig S, Kauffman S, Steiner P. Pulmonary infection and cavity formation caused by *Mycobacterium tuberculosis* in a child with AIDS. N Engl J Med. 1988;319:1018-9.

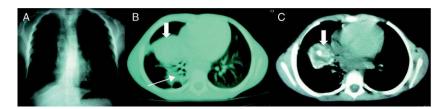


Figure 1. A) Anteroposterior chest x-ray shows a pulmonary consolidation in the middle lobe with right paratracheal widening and an emphysematous lesion in the right hemithorax. B-C) Lung HRCT shows right mediastinal adenopathies (C) and a well-defined, partially-calcified loculated collection with a necrotic appearance (thick arrows), of a large size (3.5×4 cm), and adjacent images of pulmonary consolidation with atelectasis in the lower right lobe and middle lobe (thin arrow).