

psoriasis cannot be ruled out as the cause of the lung disease; however, the patient had a history of treatment with methotrexate and cyclosporine and during hospital admission she was given many drugs which could have caused the lung affection, amongst which was acitretine, which has a well-documented link with interstitial damage.<sup>6</sup> In the case of the patient we are reporting, she did not receive any medicine to justify the symptoms, and all the bacteriological studies performed were also negative. Likewise, the response to steroids alone was very good from both the point of view of the lungs and the skin, so we inferred that there was a clear association between the 2 entities, and this is the first reported case which links, beyond all doubt, organising pneumonia with psoriasis.

To conclude, we must say that psoriasis patients can have lung manifestations and that organising pneumonia may be just another kind of lung affection caused by this skin disease.

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## Round Pneumonia: A Rare Cause of Multiple Pulmonary Nodules

### *Neumonía redonda: una causa poco habitual de nódulos pulmonares múltiples*

To the Editor:

Round pneumonia (RP) is a very uncommon cause of solitary pulmonary nodules and it is more infrequent in adults than in children. In rare cases it may present as multiple nodules and resemble diffuse tumours of the pulmonary parenchyma. We present the case of a female patient aged 56 with a history of bronchial asthma and a smoking habit of 50 cigarettes per day. She arrived at our hospital with a clinical profile of pleuritic pain in the left hemithorax, dry cough, night sweats, high fever, asthenia and weight loss of 2kg in the course of 5 days. The general physical examination was normal, except for auscultation which detected a few isolated rales in the left hemithorax. There were no signs of cyanosis, acropachy or adenopathy on any level. The clinical profile and the haematological and biochemical parameters pointed to an infectious origin: leukocytosis (15,800/mm<sup>3</sup>), elevated C-reactive protein (33.4UI) and globular sedimentation rate (62mm/h), but the chest radiography showed several pulmonary nodules. For that reason, we decided to admit the patient for study in order to rule out a neoplastic origin for the nodules. In addition, oral antibiotic treatment was initiated with levofloxacin (500mg/24 h) and a chest CT was ordered. The study was amplified to include microbiology tests, tumour markers and immunology tests. These gave negative results except for antigenaemia in urine, which was positive for pneumococcus. Two days after admission, her respiratory symptoms had improved. After the patient had been hospitalised for seven days, new analytical and radiology tests were ordered. The tests showed that the abnormal blood parameters had become normal and the pulmonary nodules had resolved; resolution was confirmed by the CT, which showed none of previously described lesions and no adenopathies on any

level. Antibiotic treatment was continued over 10 days, and it was decided to discharge the patient and monitor her on an outpatient basis. Based on the results, the patient was diagnosed with multiple-lesion RP of pneumococcal origin. Six months after the episode, the patient is asymptomatic with normal blood tests and with no radiological evidence of a relapse (Fig. 1).

RP is a rare subtype of lobar pneumonia which arises due to a developmental defect in connective tissue (pores of Köhn and channels of Lambert). While this is a well-known entity in childhood (it mainly affects children younger than eight), it has hardly ever been described in adults. It normally presents as a single nodule or mass-shaped lesion in the context of a profile suggesting a respiratory infection. There are few cases describing a presentation with multiple nodular modules or a main nodule with several satellite lesions, which makes this case especially important: the presentation may resemble tumour involvement, particularly where a family history and risk factors are present. The symptoms and the abnormalities in the analysis are size-related<sup>1</sup> and fit the usual profile (fever, cough, dyspnoea, chest pain, leukocytosis, elevated C-reactive protein and globular sedimentation rate). It often happens that this pneumonia is not detected in adults and appears as a casual finding in asymptomatic patients. In the radiology study,<sup>1-3</sup> RP may present as a nodule with a diameter of up to 7cm located in the inferior and posterior lobes adjacent to the pleura; it can appear in an air bronchogram with smooth or poorly defined edges, and satellite lesions are possible. Although microbial aetiology is quite varied, most cases in children and adults alike are attributed to *Streptococcus pneumoniae*. However, other authors<sup>4</sup> defend the hypothesis that Q fever is the most common cause of RP in adults, especially in the case of multiple lesions. The differential diagnosis<sup>5</sup> mainly includes neoplasias, especially if the lesions are found in the upper lobes (bronchioloalveolar carcinoma, metastasis or lymphomas); other infections (hydatid cysts, parasitic and opportunistic infections or septic embolism); immunological causes (sarcoidosis or Wegener); metabolic or vascular causes (arterial and venous malformations)



**Figure 1.** Posteroanterior chest radiography: shows 3 nodular lesions without an air bronchogram, measuring 2 to 3cm in diameter located in the left hemithorax, 2 peripheral adjacent lesions located in the left superior lobe, and another central parahilar lesion in the inferior lobe on the same side.

and professional diseases. Even when all usual analytical and radiology tests are performed, it can sometimes be difficult to rule out the diagnosis of malignant disease except by using the clinical profile and final evolution. For that reason, other diagnostic tests, such as PET,<sup>6</sup> are being tried without any success at present. In most cases, the outcome of the disease is favourable and it resolves completely, whether because it is self-limiting or because of administering antibiotic treatment. For this reason, several authors<sup>5</sup> state that we should consider this disease when diagnosing multiple pulmonary nodules to make sure that it has been ruled out before subjecting the patient to more intensive complementary tests.

As we can see, this is an example of RP with an atypical radiological presentation resembling diffuse parenchymal tumour involvement,

and it resolved after administration of antibiotic treatment. In conclusion, we believe that multiple-lesion RP is an infrequent but benign cause of multiple pulmonary lesions. It should therefore be taken into account, even when patients are asymptomatic, in order to perform a correct differential diagnosis.

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