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Infection Due to *Nocardia farcinica* in a Woman with Chronic Granulomatous Disease

Nocardiosis, an infecion due o an aerobic ac inomycye e, has a pronounced endency oward remission and exacerba ion. The *Nocardia asteroides* complees hree species: *N. aster-

Purulen ma erial ob ained by CT-guided aspira ion was found o be smear posi ives o af er bo h Ziehl-Neelsen and auramine aining. PCR de ec ed ma erial from non uberculous mycobac eria. Cul-

ure by use of he BACTEC sys em (Bec on Dickinson, Cockeys-

ville, MD) revealed grow h of *N. asteroides*. In vi ro suscep ibil y o es ing ha was performed on solid media by use of he propor ion echnique of Cane i showed resis ance o uberculous, e hambu ol, and pyrazinamide amide, and e hiamamide. The organism was suscep ible o ofloxa-

cin, rifabu in, and amikacin.

Ofloxacin was added o he pa ien ’s herapeu ic regimen when *N. asteroides* was iden ified. Two mon hs la er, because of he enlarge-

men of he abscess, a drainage ca he er was inser ed, yielding 300 mL of purulen ma erial. Auramine aining of he ma erial again demons ra ed acid-fas bacilli, bu cul ures remained nega-

ive. The abscess cavi y was irriga ed wi h povidone-iodine. Ther-

apy wi h pyrazinamide and ofloxacin was discon inued, and ci-

profl oxacin was added o he herapeu ic regimen.

A second percu aneous drainage wi h lavage was performed 1 mon h la er because here was no improvemen in he pa ien ’s condi ion; his procedure yielded 150 mL of purulen ma erial. Acid-fas bacilli were no de ec ed by e i her direc examina ion o cul ure.

Medical rea men was con inued for 18 mon hs, wi h clinical improvemen and biological normaliza ion. CT performed 17 mon hs af er comple ion of he abscess revealed a significan persis en lo cula ed fluid collec ion, despi e he pa ien ’s sa isfac ory clinical condi ion.

Primary psoas muscle abscess is an uncommon infec ion and caused mos of en by infec ion due o *Staphylococcus aureus*. To our knowledge, his is he firs descrip ion of a case of primary psoas muscle abscess caused mos of en dam ons ra e a pulmonary, bone, or o her source for he psoas muscle infec ion.

PCR me hods were very useful in ha hey allowed early de ec-

ion of mycobac erial DNA and he de ermina ion of o never uberculous mycobac erial origin. The specific PCR echnique allowed *N. asteroides* to be de ec ed and the pa ien wised 24 hours af er he cure became posi ive.

The op imal herapeu ic regimen and dura ion of rea men for infec ion due o *N. asteroides* is no clearly defined. In vi ro suscep ibil y oes ing ha was performed on solid media by use of he propor ion echnique of Cane i showed resis ance o uberculous, e hambu ol, and pyrazinamide amide, and e hiamamide. The organism was suscep ible o ofloxa-

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A 56-year-old woman with CGD and a 1-month history of fever and a cough productive of greenish sputum failed to respond to ceftriaxone. She was admitted to the hospital. Her medical history included recurrent inguinal lymphadenitis, pulmonary sarcoidosis, and colitis. In 1988, she was re-admitted for breast carcinoma. In 1994, a biopsy revealed a fungal infection with Aspergillus fumigatus was diagnosed, and she was re-admitted with a history of recurrent fever. CGD due to p47phox deficiency was diagnosed. Treatment for CGD with interferon and prophylaxis for infection with co-rimoxazole were discontinued because of side effects.

On admission, the patient's temperature was 39°C. Auscultation over the upper lobe of the right lung revealed the presence of fine crackles. The erythrocyte sedimentation rate (71 mm/h) and the WBC count (14.4 × 10^9/L with left shift) were elevated, and anemia was present (hemoglobin level, 42.5 g/dL). A chest radiograph and a chest CT scan revealed a cavernous lesion, 7 cm in diameter, in the right upper lobe of the lung (figure 1). Bronchoscopic examination revealed no abnormalities, but gram staining of the bronchoalveolar lavage fluid and biopsy specimens showed gram-positive, filamentous and branched bacteria, which were fluorescein with UV excitation (R&R, Kandern, Germany). With an assumed diagnosis of nocardiosis and consideration of the amphotericin B-induced renal damage, iv ceftazidime (1 g q.i.d.) and imipenem (500 mg q.i.d.) were administered. The fever resolved, and, within 6 months, the pulmonary cavernous lesion resolved.

Aerobic incubation of the bronchoscopic specimens at 37°C for 4 days yielded folded, heaped, slightly orange colonies producing an aerial mycelium. The microorganism was partially acid-fast, was resistant to lysozyme, and produced urease and acid from glucose and rhamnose. N. farcinica was identified on the basis of negative decomposition of adenine, casein, xanthine, hypoxanthine, and yrosine; equal growth at 35°C and 45°C; opacification of Middlebrook agar; results of qualitative evaluation of cell-wall lipids and amino acids; and specific enzymatic activities; however, the young may be due to the residual killing activity present in the granulocytes and amphotericin B-induced renal damage, iv ceftazidime (1 g q.i.d.) and imipenem (500 mg q.i.d.) were administered. The fever resolved, and, within 6 months, the pulmonary cavernous lesion resolved.

Figure 1. Radiograph and CT scan (insert) of the horax of a patient with chronic granulomaous disease and infection due to Nocardia farcinica. A cavernous lesion developed 1 month after admission (arrow).

The lungs, brain, and soft tissues were involved in 3 of 65 cases, but the paranasal sinuses, oral palatine, and nasal cavities were involved in 2 of 11 adult CGD patients for whom the rate of infectious complications was low during your stay [10].

Sulfonamides are still the treatment of choice for infections due to N. farcinica [2, 3]. Good outcome was reported in a recent report of a patient with septicemia and amphotericin B-resistant infection with N. farcinica in the mouse model [3].

[3], but in addition dissemination of the infection to the lungs, kidneys, bones, and endocardium [2, 3, 5].

In our patient, the primary lesion was located in the right lung. Lack of dissemination and low number of infectious colonies in the mouse model were due to the residual killing activity present in the granulocytes and amphotericin B-induced renal damage, iv ceftazidime (1 g q.i.d.) and imipenem (500 mg q.i.d.) were administered. The fever resolved, and, within 6 months, the pulmonary cavernous lesion resolved.

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Neisseria are case-conrol studies comparing the efficacy of the various regimens.

C. A. P. Fijen, J. Schrama, E. J. Kuijper, P. Boiron, W. Gerrissen, and P. Speelman
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References

Neurosyphilis and Syphilitic Gumma of the Adrenal Gland

Syphilitic gummas have been described in different body organs, but syphilis of the adrenal gland is rare; only two cases were reported in the first half of the century [1]. As far as we know, ours is the first case of syphilitic gumma of the adrenal gland reported in recent years. A 66-year-old male was admitted to hospital in 1996 with a two-week history of abdominal pain and cons of the body. He had diminished vision, positive Treponema pallidum che was positive and negative PCR assay of blood and CSF was negative. The cor isolation level was 18 µg/dL and the result of a cosyn regimens was negative. The patient suddenly became somnolent. His vital signs were: temperature, 102.4°F; pulse, 85/min and regular; and blood pressure, 84/44 mm Hg. He was resuscitated with fluids, hydrocorisone, and an antibody. All cultures were negative. The cortisol level was 140 µg/dL. A CT scan of the abdomen showed a left adrenal mass with multiple hemorrhages. Microscopic studies revealed focal areas of necrosis with inflammatory cells. Therapy with hydroxyprogesterone was started af ter admission. Six days later, he