Infection due to Nocardia farcinica in a woman with chronic granulomatous disease

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

Nocardiosis, an infec tion due to an aerobic ac inomyce e, has a pronounced endency oward remission and exacerbation. The *Nocardia asteroides* complex comprises three species: *N. aster-

PCR me hods were very useful in ha hey allowed early de ec-
ion of mycobac erial DNA and de erminion o i s non uber-
culous mycobac erial origin. The specific PCR cneique allowed . xenopi iden ifica ion wi hin 24 hours af er he cul ure became posi ive.

The op imal herapeu ic ic regimen and dura ion o rea men for infec ion due o . xenopi are no clearly de nined. In vi ro suscep i-
bility y s o . xenopi frequen ly show resis ance o isoniazid, rifampin, pyrazinamide, and e hambu ol. Never heless, hese a gen s are recommended as he herapy of choice, given ha previ-
ous s udie s have demons ra ed a poor corre la ion he been in vi ro re-
sul s and clinical responses [2–4]. The quinolones are an al era-
ive rea men for infec ion due o . xenopi.

Management of a large psoas muscle abscess requires appro-
propri e an ibio ic herapy (usually 18–24 mon hs), in conjunc ion
wi h percu aneous drainage or open surgical drainage. In our pa-
	

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References


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 treatment with erythromycin. She was admitted to the hospital. Her medical history included recurring inguinal lymphadenitis, pulmonary sarcoidosis, and colitis. In 1988, she was readmitted for breast carcinoma. In 1994, metastases due to infection with Aspergillus fumigatus was diagnosed, and she was readmitted with amphotericin B; her therapy was changed to itraconazole because of renal dysfunction. CGD due to p47phox deficiency was diagnosed. Treatment for CGD with interferon and prophylaxis for infection with cotrimoxazole were discontinued because of side effects.

On admission to the hospital, 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 \times 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 fluorescent with UV-ex 2B (R&R, Kandern, Germany). With an assumed diagnosis of nocardiosis and consideration of the amphotericin B–induced renal damage, intravenous cefoxime (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 uric acid; equal growth at 35°C and 45°C; opacification of Middlebrook agar; results of qualitative evaluation of cell-wall mycolic and amino acids; and specific enzymatic activities; however, the young may be due to the residual killing activity present in the granulocytes. Consistent with this hypothesis, a recent report described residual superoxide production of the granulocytes in seven of 11 adult CGD patients for whom the patient's infection complications was low during you [10].

Sulfonamides are still the treatment of choice for infections due to N. farcinica [2, 3]. Good therapy is required to achieve a cure and to prevent relapse. Mouse studies demonstrated that bacteria produced by infection with N. farcinica have a greater tendency to disseminate and establish infections in the CNS [3], but also disseminates to other organs such as kidneys, bones, and endocardium [2, 3, 5, 6].

In our patient, the primary lesion was located in the right lung. Lack of disseminated infection and lower number of infecting organisms in the lung may be due to residual killing activity present in the granulocytes. Consistent with this hypothesis, a recent report described residual superoxide production of the granulocytes in seven of 11 adult CGD patients for whom the patient's infection complications was low during you [10].

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Neisseria case-records sudies comparing he efficacy of he various regimen regimens.

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References

Neurosylphilis and Syphilitic Gumma of the Adrenal Gland

Syphilitic gummatus have been described in different body organs, bu syphilis of he adrenal gland is rare; only wo cases were report ed in he first half of he cen ury [1]. As far as we know, ours is he first case of syphilitic gumma of he adrenal gland o report ed in recent years.

A 66-year-old male was admi ed to he hospital in 1996 wi h a 2-week了他的 abdominal pain and cons ips ion and diminished vision in he right eye; he had had he hargy, polydipsia, and gai dis urbance for several mon hs.

On admission he was afebrile and had angular cheilosis and a small kera oid lesion a he righ oral commissure. He was orien ed to 3, bu he shor -erm memory was impaired. He had diminished cen ral vision in he right eye, wi h minimal blurring of he disk margins on he right. He had mild upper-ex remi y weakness ha was more pronounced on he lef han on he right. His gai was broad based and mildly a axic.

Labora ory sudies revealed he following values: sodium, 137 mEq/L; po assium, 5.2 mEq/L; chloride, 102 mEq/L; hyroxine, 0.82 µg/dL; and hyroid is smula ing hormone, 33.86 µg/dL. A es for hyroid an ibodies was posi ve. The ery hrocy e sedimen a ion wa an ibio ics alone. Clin Infect Dis 1993;16:756–60.

An FTA es of he CSF was posi ve. Serology for IgG and IgM an ibodies o Borrelia burgdorferi was posi ve, bu PCR assays of blood and CSF were nega ive. Labora ory sudies of he CSF showed a pro ein level of 96 mg/dL, a o al WBC coun of 55/mm³ wi h 94% lymphocy e, and a glucose concen ra ion of 54 mg/dL (serum glucose concen-ra ion, 100 mg/dL). A CSF venereal disease research labora ory (VDRL) es was posi ve (i er, 1:16), and an FTA es of he CSF was posi ve. A es for an ibodies o HIV was nega ive. The pa ien received penicill G in ravenously for 10 days. An hosp halmology diagnosed righ -eye ischimic op ic neuropa hy secondary o neurosyphilis.

Lef adrenalec omy was performed, revealing a 3 × 2 × 1-cm adenral mass wi h mul iple hemorrhages. Microscopic examina ion of he mass revealed focal areas of necrosis wi h ish isma ory cells surrounded by fibrous issue showing moder he lymphoplas-macy ic infil ra e. A War hin-S arry s ain showed numerous spiro-ches es (ypical of Treponema pallidum) wi hin he necro ic is areas, confirming a diagnosis of syphilitic gumma of he adrenal gland (figure 1). Af er he adrenalec omy was performed, he pa ien became le hargic; resul s of a repea ed cosymin ropin es were abnor-mal, consises n wi h he adrenal insufficiency [4], and replacemen herapy wa s ar ed.

The clinical manifes a ions in our pa ien are consises n wi h neurosyphilis; he ypes of neurosyphilis commonly described are asymp oma ic, meningal, meningovascular, and parenchymal ypes, and he results of he overlap among he ypes [5]. Our pa ien ‘s manifes a ions were predominan ly he syndrome of meningovascular syphilis, as manifes ed by memory impairmen, weakness in his lef upper ex remi y, and he ischimic op ic neuropa hy in associa ion wi h