Pulmonary tuberculosis due to mycobacterium microti in an human immunodeficiency virus-infected patient

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Pulmonary Tuberculosis Due to *M. tuberculosis* microti in a Human Immunodeficiency Virus–Infected Patient

Recen ly, we described he microbiological iden fica ion of *M. tuberculosis microti* (which belongs o he *M. tuberculosis* complex), by using novel gene ic markers, in speci mens from four immunocompromised pa ien s [1]. Herein we de tail he clinical course of one of he four pa ien s who was HIV-1-infec ed.

A 39-year-old, homosexual, HIV-1-infec ed man was admi ed o he hospit al because of weigh loss, fever, and a flu-like syndrome. Six weeks before admission, he had developed nigh swea s wih concurrent weigh loss and in ermi en fever ( empera ure, ≤40°C) wih chills. A he imed he CD4⁺ lymphocy e coun e was 20/mm³ and his viral load was 140,000 copies/mL, despi e an ir heoviral riple herapy. He had a nonproduc ive cough and dyspnea on exer ion, and he had nausea bu no vomi nging. His bowel movements e were unremarkable. Physical examina ion a he imed of admission revealed a weigh of 78.5 kg (normal, 90 kg). There were no ches abnormali ies no ed. A sharp edge of he liver was palpable 3 cm below he righ cos al margin. Unchanged symme ric axillary and inguinal lymphadenopa hy was found.

Skin es ing (Mul i es CMI, Ins i u Mérie u , Beneluse, Brus sels, Belgium) including uberculin skin es ing edica inde complete e

References

3. Berkowiz KA, Aranda CP, Smi h RL. Value of a *M. tuberculosis* complex respira ory rac isola e as a predic or of dissemina ed infec ion. Ches 1993;104:988.
7. Connors M, Kovacs JA, Kreva S, e al. HIV infec ion induces changes in *M. tuberculosis* complex genic markers, in speci fic for he IS₆₁₀₀ eleme. Zeehl-Nielsen saing of spu um and sool speci mens revealed shar ed curved acid-f us bacilli (AFB). Cul ures of spu um, blood, and sool specimens remained nega ve for mycobac eria. A PCR assay performed on he spu um wih primers specific for he IS₆₁₀₀ sequence of *M. tuberculosis* complex [2] was posi ive. Fur her analysis by use of spoligo ypings, a hechnique based on he mycobac erial erial complex, had disappeared, bu spu um exina ion sina ed high numbers of curved AFB. A CT scan of he ches showed a persis en dense infil ra e and small cavi ies in he lower la eral region of he lef lung (figure 1). Consequen ly, clari hromycin and ofloxacin were added o he quadruple an imycobac erial erial regimen. During he nex 2 mon hs when no AFB were observed in he spu um, herapy was changed o he ini al quadruple regimen. However, 2 mon hs la er (9 mon hs af er diagnos is), AFB were again no ed in he spu um. The six-drug herapeu ic regimen was resumed. The pa ien s clinical condi on did no e heory e during he nex 7 mon hs. Evalua ions of spu um and bronchoal vo lar lavage fluid speci mens remained nega ive for AFB. Molecular analysis re ropec ively showed ha he pa ien s rain was suscep ble o rifampin. Con ac racing showed ha hee imuno compe en, non-HIV-infec ed individuals, who had been in close con ac wi he he index pa ien , had posi ive uberculin skin es es responses. Spu um could no e be ained from any of hee individuals. Their ches radiographs were normal and all hree were rea ed prophylac ically wi h isoniazid.
The pathogenicity of *M. microti* was first discovered and described in mice by Wells [4]. The organism was later distinguished from *M. tuberculosis* [5]. *M. microti* has a characteristic morphology (generally pleomorphic: forming a sickle, a spiral, or an S-like appearance). This typical curved appearance, seen on Ziehl-Neelsen staining, is generally lost during in vitro culture. This bacillus is difficult to distinguish from the members of the *M. tuberculosis* complex on the basis of biochemical properties. However, nowadays, the diagnosis can be made by using newly developed spoligotyping methods or IS6110 restriction fragment length polymorphism [6]. To date, there are no specific reports recommending isolates for *M. microti*, given that additional data are needed regarding the drug susceptibility of *M. microti*.

### Bacteremia Due to *Campylobacter sputorum* Biovar *sputorum*

*Campylobacter sputorum* biovar *sputorum* can be found in the oral cavity and the gastrointestinal tract of humans, but rarely causes disease. To our knowledge, only a few reports have implicated its organism in human infections [1–4].

In three of these reports, the isolates were recovered from abscesses [1–3], whereas in the fourth report [4] the organism was recovered from fecal samples of a patient with diarrhea. We describe a case of *C. sputorum* biovar *sputorum* in a patient with a knee abscess and a recent history of traveling to a country with tuberculosis.

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**References**


