Diagnosis: spinal tuberculosis with cording of the tubercle bacillus.

With high clinical suspicion for tuberculosis (figures 1 and 2), the aspirated sample was plated on Löwenstein-Jensen medium and cultured using the Mycobacteria Growth Indicator Tube 960 automated system (Becton Dickinson). Liquid medium systems, such as the Mycobacteria Growth Indicator Tube 960 automated system and the MB Redox tube system (Biotest), are known to expedite the identification of mycobacterial growth [1, 2]. Gene probing of the growth cultured using the Mycobacteria Growth Indicator Tube medium had test results positive for \textit{Mycobacterium tuberculosis} complex, and the final results of the biochemical tests performed on the growth cultured using Löwenstein-Jensen medium confirmed \textit{M. tuberculosis} as the etiological agent.

Acid-fast staining of the growth cultured using the Mycobacteria Growth Indicator Tube medium revealed serpentine cord formation (figure 3), a feature that has been evaluated as a rapid method for presumptive identification of \textit{M. tuberculosis} complex [3]. Individual tuberculosis bacilli can be seen, along with cording, in figure 4. Cord factor (trehalose 6, 6'-dimycolate), a glycolipid component of the tubercle bacillus, has been implicated in the cord formation [4] and virulence of the bacterium [5].

Our patient had multiple vertebral involvement, but he did not experience any neurological deficits. It was decided to treat the condition with medical management rather than surgery, and antituberculosis therapy was commenced. The patient tolerated the treatment regimen well and was discharged from the hospital with a scheduled follow-up visit.
Figure 3. Microscopic examination with a special stain on growth in a liquid culture medium.

Acknowledgments

Potential conflicts of interest. N.B. and M.M.Z.: no conflicts.

Nitin Bhanot and Muhammad M. Zaman

*Maimonides Medical Center and *Coney Island Hospital, Brooklyn, New York

References


Reprints or correspondence: Dr. Nitin Bhanot, Maimonides Medical Center, Dept. of Infectious Diseases, 4802 10th Ave., Brooklyn, NY 11219 (nitinbhanot@gmail.com).

Clinical Infectious Diseases 2007; 44:1662–3 © 2007 by the Infectious Diseases Society of America. All rights reserved.

1058-4838/2007/4412-0021$15.00

Figure 4. Dispersed tuberculosis bacilli surrounded by corded tuberculosis bacilli.