Clin Infect Dis. 2009 Jan 15;48(2):iv.

Stan Deresinski, Section Editor

In the Literature

Natural History of Lymphadenitis due to Nontuberculous Mycobacteria (NTM)

Zeharia A, Eidlitz T, Haimi-Cohen Y, et al. Management of nontuberculous mycobacteria-induced cervical lymphadenitis with observation alone. Ped Infect Dis J 2008; 27:920–3.

During 1990–2004, the parents of 92 previously healthy children with cervical lymphadenitis proven to be due to NTM who were seen at a single center in Tel Aviv, Israel, opted for noninterventional management. All diagnoses were based on culture of material obtained by fine-needle aspiration. Cultures yielded *Mycobacterium avium* complex organisms in 51 children (55%) and *Mycobacterium haemophilum* in 32 (35%); in the remaining 9 children, cultures yielded *Mycobacterium gordonae*, *Mycobacterium marinum,* or *Mycobacterium chelonae.* None of the children received antimycobacterial therapy after presentation. Despite the lack of any intervention, lymphadenitis totally resolved, without recurrence, in 65 children (71%) in 3–6 months, in 98% in 9 months, and in 100% in 12 months. The children were left with a flat scar in the area where spontaneous drainage of the lymph node had occurred.

In the United States, *M. avium* complex accounts for approximately four-fifths of culture-positive cases, followed by *Mycobacterium scrofulaceum*, whereas in northern Europe (especially Scandinavia), *Mycobacterium malmoense* is frequently recovered. The high incidence of *M. haemophilum* infection observed by Zeharia and colleagues has previously been reported in Europe. *M. haemophilum,* as well as certain other mycobacteria, require special culture conditions to grow, so the true incidence of *M. haemophilum* infection in most of the world is, as yet, unknown.

In a recently published study from The Netherlands, 100 children with cervical lymphadenitis due to NTM were randomized either to undergo surgical excision or to receive clarithromycin and rifabutin for at least 12 weeks [1]. Cure at 6 months was achieved in 96% and 66% of children, respectively. It should be noted that the latter rate was similar to the cure rate at 6 months observed by Zeharia and colleagues— whose subjects, of course, received no therapy at all. Failure of cure with antimicrobial therapy was not explained by in vitro resistance, which was uncommon, nor was it explained by mycobacterial species as causes of infection.

A summary of the available evidence would appear to lead to the following conclusions. Surgical therapy results in amore rapid cure than does antimicrobial therapy or no intervention, albeit at the risk of complications (including permanent facial nerve injury, which occurred in 1 child in the Dutch study). Comparing the results of antimicrobial therapy in the Dutch study with those of no therapy in the Israeli study suggests that ultimate outcomes were similar and fails to suggest a strong benefit for antimicrobial therapy. It is, of course, dangerous to compare results of the 2 separate studies, because there is good reason to believe that the cohorts may not have been entirely comparable. The current (2007) guidelines of the American Thoracic Society/Infectious

Disease Society of America that deal with this subject state that, in addition to antimicrobial therapy, “The guiding principle for most localized NTM lymphadenitis that occurs in immunocompetent patients, due to any NTM species, is complete surgical excision of the involved lymph nodes” [2, p. 384]. However, it would appear that, although we have a reasonable understanding of the results for surgical therapy alone, there is little understanding of the role of antimicrobial therapy in this disease.

References

1. Lindeboom JA, Kuijper EJ, Bruijnesten ES, et al. Surgical excision versus antibiotic treatment for nontuberculous mycobacterial cervicofacial lymphadenitis in children: a multicenter, randomized, controlled trial. Clin Infect Dis **2007**; 44:1057–64.

2. Griffith DE, Askamit T, Brown-Elliott BA, et al. An official ATS/IDSA statement: diagnosis, treatment and prevention of nontuberculous mycobacterial diseases. Am J Resp Crit Care Med **2007**; 175:367–416. DOI: 10.1086/596472