Tularemia presenting as a cervical abscess

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A 40-year-old man presented with two months of progressive left neck swelling, night sweats, and fatigue. He worked as a hunting guide in New Mexico and reported multiple bites from insects, including deer flies, on the job. He had been treated with penicillin, cephalaxin, and clindamycin, but his symptoms persisted. On presentation to our institution, his examination was notable for a temperature of 97.4°F, clear throat, and a 4 × 5-cm erythematous, mildly tender mass in the left neck with an area of fluctuance superiorly (Fig 1). Fine needle aspiration revealed necrotizing acute inflammation without granulomas; cultures were negative, and smears were negative for acid-fast bacilli. Chest x-ray was clear, and a tuberculin skin test was negative. A contrast-enhanced computed tomography (CT) scan was obtained shortly after the mass spontaneously drained and revealed a 1.8 × 0.8 × 2.4-cm subcutaneous fluid collection at the level of the platysma, but no lymphadenopathy (Fig A1, available online at www.otojournal.org). A serum titer for tularemia was sent and returned four days later, and was highly positive at 1:8192 (normal, < 1:128). Following a four-week course of oral ciprofloxacin 750 mg twice daily and doxycycline 100 mg twice daily, his symptoms resolved.

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Tularemia is a rare zoonotic disease of the Northern Hemisphere caused by the gram-negative bacterium Francisella tularensis. The organism can infect hundreds of different vertebrates and invertebrates, particularly rabbits and rodents. Transmission to humans in the United States occurs most often by the bite of a tick or deer fly, by inhalation of aerosolized bacteria (e.g., mowing lawns contaminated with the organism), or through contact with contaminated soil or animal products (e.g., skinning rabbits). Tularemia presents in one of six classic forms: ulceroglandular, glandular, oculogoportal, pharyngeal, typhoidal, or pneumonic. After an average incubation period of three to five days, patients typically develop a febrile illness. Treatment is with antibiotics, with intramuscular streptomycin the treatment of choice in severe cases.1,2 Our patient presented after a two-month illness with what appeared to be the glandular form of tularemia. However, the CT scan did not show adenopathy but rather a subcutaneous abscess that mimicked a sebaceous cyst. Oztoprak et al also reported cysts and abscesses in their case series on the evaluation of cervical CT findings in oropharyngeal tularemia.3 Recent World Health Organization recommendations suggest that oral ciprofloxacin or doxycycline can be used in less severe cases.4 We chose to use both concomitantly, given the high relapse rate with either drug alone.2

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Marcella M. Alsan, conception and design, acquisition of data, analysis and interpretation of data, drafting the article, final approval; Harrison W. Lin, conception and design, acquisition of data, analysis and interpretation of data, critical revision, final approval.

Disclosures

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References

Figure A1  (A) Axial and (B) coronal CT images revealing a left cervical fluid collection superficial to the platysma muscle at the level of the thyroid cartilage.