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Polymerase chain reaction for pathogen identification in persistent pediatric cervical lymphadenitis.

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OBJECTIVE: To study routine culture-negative persistent cervical lymphadenitis in children treated surgically during a 10-year period (December 26, 1997, to October 1, 2007) at a single institution.

DESIGN: Retrospective case series. **SETTING:** Tertiary university-based pediatric referral center.

PATIENTS: Patients 18 years or younger with cervical lymphadenitis managed surgically (incision and drainage, curettage, and/or excisional lymphadenectomy) and medically (antibiotic therapy), culture-negative after 48 hours, and subsequently diagnosed using the polymerase chain reaction, extended culture incubation, and/or histopathologic evaluation.

MAIN OUTCOME MEASURES: Number of surgical interventions, causative organisms, histopathologic features, and resolution of lymphadenitis.

RESULTS: Ninety surgical procedures were performed in 60 patients. The cure rate was 23% (approximately 14 patients) with incision and drainage, 58% (approximately 35 patients) with curettage, and 95% (57 patients) with excisional lymphadenectomy. Nontuberculous mycobacteria were the most prevalent causative organisms, followed by Bartonella and Legionella organisms. Four of 6 patients with Bartonella infection had a history of cat exposure, and 4 of 6 patients with Legionella infection had a history of hot tub exposure.

CONCLUSIONS: Excisional lymphadenectomy is the preferred treatment of mycobacterial persistent cervical lymphadenitis in children. Sufficient data are lacking for similar recommendations in patients with disease caused by Bartonella organisms, whereas for neck disease caused by Legionella organisms, excisional lymphadenectomy may be superior to incision and drainage. The polymerase chain reaction is useful for pathogen identification in pediatric cervical lymphadenitis, although it is less sensitive in identification of mycobacteria. To our knowledge, our study is the first to report multiple cases of legionellosis in otherwise healthy children. Legionella seems to be a previously unrecognized but relatively common pathogen in culture-negative persistent cervical lymphadenitis in children.

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