AN UNLIKELY CULPRIT OF FACIAL NERVE PALSY IN A CHILD WITH FEVER OF UNKNOWN ORIGIN

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Background: Fever of unknown origin (FUO) is a common chief complaint among pediatric patients presenting to the hospital. A broad differential for underlying etiologies must be considered for FUO, including infectious causes.

Materials/Methods: A previously healthy 5-year-old female presented with 19 days of fever with associated fatigue, headaches, and six-pound weight loss. Review of systems was otherwise unremarkable. Exposure history was notable for exposure to unvaccinated cats. She remained afebrile throughout admission. Physical exam was negative for lymphadenopathy, hepatosplenomegaly, or rash. On the second day of hospitalization, the patient developed left-sided facial droop consistent with Bell's palsy.

Results: Diagnostic evaluation was notable for CRP 8.1 mg/dL and ESR 70 mm/hr. Blood cultures remained negative. To evaluate the patient's new facial droop, CT head without contrast was done, which demonstrated no acute intracranial process. Infectious workup was negative for Rickettsial infection, Lyme disease, West Nile Virus, Varicella, Mumps, EBV, CMV, and HSV-1 and -2. An abdominal ultrasound was notable for multiple subcentimeter hypoechoic lesions throughout her liver and spleen, consistent with disseminated cat scratch disease (CSD). Given the concern for disseminated CSD and the patient's facial nerve palsy, ophthalmologic exam was performed and was negative for neuroretinitis. MRI brain was negative for parotid granulomas around the facial nerve. Due to the clinical suspicion for CSD, treatment with azithromycin and rifampin was initiated for a 14-day course, after which the patient had resolution of fevers and facial nerve palsy. After discharge, Bartonella henselae IgM and IgG both resulted as positive at 1:256.

Conclusions: Our patient represents an atypical case of FUO caused by disseminated Bartonella henselae infection associated with late onset facial nerve palsy. The finding of facial nerve palsy is highly unusual for Bartonella infection, with four prior pediatric cases identified. Our patient stands out for the absence of focal or imaging findings to suggest mass effect on the facial nerve. This case opens the question of the mechanism of facial nerve palsy in these patients, whose differential includes vasculitis. Treatment of our patient with rifampin and azithromycin to target CSD treated her facial palsy as well. The types of clinical disease caused by Bartonella henselae is broad, and further study of the spectrum of disease attributable to this organism is warranted.