

CASE REPORT

CAT SCRATCH DISEASE PRESENTING AS ISOLATED NECK TORTICOLLIS

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Abstract

Cat scratch disease can have varied presentations in children ranging from lymphadenopathy with systemic symptoms of fever, sore throat and headache to atypical manifestations like oculo-glandular syndrome, meningo-encephalitis, osteolytic lesions, and retinitis. We report the case of a child presenting with isolated torticollis, in whom cat scratch disease was the final diagnosis and review of literature on the varied presentations of this disease. A thorough history and physical examination were vital in the diagnosis and management of this patient.

Introduction

Torticollis is a worrying symptom in children with causes ranging from benign self-limited conditions to progressive malignant diseases. (1) A thorough history and physical examination are essential to guide management of these patients. We report the case of a child presenting with isolated torticollis, in whom cat scratch disease (CSD) was the final diagnosis, and review the literature on the varied presentations of this disease.

Case Report

A 12 year-old girl presented with a four-day history of painful left-sided torticollis. This had started as mild neck pain but steadily progressed to a marked torticollis. There were no other systemic symptoms such as fever, vomiting, headache or rash. On examination, she was a well-looking child with normal vital signs with obvious left-sided neck torticollis. Neck movements were restricted due to pain. Several tender, firm, upper deep cervical lymph nodes, with a maximum size of 2 cm, were palpable on the left side of the neck. However, the left side axillary lymph nodes were not palpable and neither was there any other significantly enlarged lymph nodes in contralateral cervical or axillary areas. The rest of the examination revealed no hepatosplenomegaly, focal neurological deficits, Kernig's sign or ophthalmological abnormalities. On further detailed examination, a 2 cm long healed scratch mark was visible on the dorsum of the left hand and, on re-exploring the history, the patient recollected being scratched by her new kitten few weeks back. The differential diagnosis for this patient included a soft tissue infection of the neck, trauma, cervical spine abnormalities - subluxation, fracture or osteomyelitis, posterior cranial fossa neoplasm and focal neck dystonia. In view of the history of kitten scratch, the possibility of CSD was also entertained. Complete blood count, blood culture, ESR, CRP and cervical spine radiograph were normal. Bartonella henselae antibody titre was 1:128 by indirect immunofluorescence assay. This fulfilled the Centres for Disease Control (CDC) diagnostic criteria for CSD. (2,3) The patient was started on 10 mg/kg oral azithromycin once daily for 5 days, and oral ibuprofen 10 mg/kg was used for pain control. At 48

hours, the torticollis had markedly improved.

Discussion

Torticollis can be caused by a wide spectrum of conditions in the children. (1) In infants, congenital muscular torticollis, gastro-esophageal reflux and ocular torticollis are the commonest causes. (4) In older children, cervical spine abnormalities like trauma or inflammation, retropharyngeal abscess or posterior fossa cranio-spinal neoplasms are common. A detailed neurological examination must be performed in all patients and the presence of a focal neurological deficit mandates urgent head and neck imaging.

Our review of the literature revealed isolated neck torticollis as a presentation of CSD is uncommon, although cervical lymphadenitis is a known manifestation of CSD. (3) In our patient, since the neurological and radiological examinations were normal and serology was suggestive of Bartonella henselae infection, the probable mechanism of acute torticollis was proximity of the inflamed left cervical lymph nodes to the left sternocleidomastoid muscle. Case reports of cervical vertebral osteomyelitis due to CSD have been described in literature and epidural abscess in the cervical region can be a complication of CSD. (5)

Humans are infected by cats either by scratch or contact with saliva (a bite). (3) In half of infected patients a tiny skin lesion develops at the inoculation site and later forms a papule or vesicle. (6) The incubation period from the time of the scratch to appearance of the primary cutaneous lesion is 7-12 days and the period from the appearance of the primary lesion to the appearance of lymphadenopathy is 5-150 days (median, 12 days). (3) This may be associated with systemic symptoms of fever, cervical or axillary lymphadenopathy, sore throat and headache. (3) In approximately 10% of infected patients, atypical manifestations are seen including oculo-glandular syndrome, meningo-encephalitis, osteolytic lesions, and retinitis. (6)

The clinical decision to treat an immunocompetent patient with cat scratch disease is open to discussion. A five-day course of oral azithromycin has been shown to hasten the decrease in size of the cervical lymphadenopathy. (7)

Conclusion

Our case highlights the need for the pediatricians to be aware of this rare but treatable cause of neck torticollis in children, in addition to always entertaining a broad differential for this worrisome condition. A thorough history and physical examination help in diagnosis and may help limit blood investigations and imaging. Isolated torticollis is a rare presentation of cat scratch disease and the decision to treat these patients should depend on duration of symptoms, severity of clinical manifestations and the immunological status of the patient.

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