2282. Clinical and Radiologic Manifestations of Cat-Scratch Osteomyelitis in Children
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Background. Osteomyelitis (OM) is a rare sequela of cat scratch disease (CSD), often with atypical bone involvement. Clinical presentation of CSD OM is not well described. We sought to determine the clinical and radiologic manifestations of CSD OM patients admitted to Nationwide Children’s Hospital.

Methods. EMR of inpatients was reviewed between January 2010 and March 2017. Clinical, radiological, and histopathological findings were collected.

Results. Nine patients with positive cat scratch serology and/or tissue PCR were identified. Mean age was 6 years and 8 months (range 3–12 years). Patients had a prolonged course of illness before the diagnosis was made (mean 9.7 days). All patients had fever and affected bone area pain. Patients had normal WBC (mean 11,800/mm3) and modest ESR (mean 53.2 mm/hours) and CRP (mean 5.2 mg/dl) elevations on admission. Six patients had osteomyelitis at ≥ 2 sites (multifocal) with no contiguous lymphadenopathy (LAD). The vertebral and pelvic girdle were the most common sites. Two patients had contiguous paraspinal abscesses, and 1 patient had a concomitant lymph node (LN) abscess. No osteolytic lesions were identified. Serology in all (9 of 9 IgG; 7 of 9 IgM) and PCR of bone in 2 of 2 patients were positive. All patients received antimicrobial therapy with median duration of 28 days (IQR 15–50).

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Background. Pertussis, also called whooping cough, is an acute infectious disease of high transmissibility transmitted through aerosol particles released during the catarrhal and paroxysmal cough phases. Since the 1980s, its incidence has increased and atypical clinical forms have been identified, mainly in newborns and adults. We hypothesized that there is a relationship between the high incidence of pertussis infection in children up to 6 months of age and genetic changes in the circulating strains of B. pertussis that may reduce their sensitivity to diphtheria, tetanos, and pertussis vaccine (DTP).

Methods. Data were obtained from the medical records of hospitalized patients at the Varela Santiago Children’s Hospital in Brazil from January 1, 2013 to December 31, 2013.

Results. A total of 33 cases of pertussis hospitalizations were found, where 75.7% (25/33) of the patients were 6 months of age or younger (6 patients were 30 days old or younger while 19 ranged in age from 31 days to 6 months). Of these, 54.5% (14/25) were in exclusive breastfed children. Only 18.2% (6/33) of the patients had the appropriate administration of DTP doses according to their age. Signs and symptoms were: cough 100%, cyanosis 63.6%, fever 48.5% and inspiratory winch 33.3%. Azithromycin was used as monotherapy in 90% (30/33) of the cases and the mean time of hospitalization was 9.48 days ranging from 6 to 30 days. No patient died.

Conclusion. We identified a high prevalence (75.7%) of B. pertussis infection in children up to 6 months of age. This is likely explained by the low vaccination rate (18.2%) and the low percentage of exclusive breastfeeding of the studied population. The low rate of vaccination is unexpected, given that there has been greater access to vaccination in recent decades in Brazil. In addition, the cases evolved with an atypical clinical presentation, since the classic symptoms of CSD and pertussis were absent or had such a short duration that such symptoms were no longer present at the time of hospitalization. Our study does not exclude the possibility that genetic changes are occurring in the circulating strains of B. pertussis and that DTP seems to have less efficacy on these new strains, but future studies will be needed to specifically test this hypothesis.

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Background. CT remains the most prevalent STI in developed and developing countries. Prenatal screening and treatment of pregnant women has resulted in a dramatic decrease of perinatal CT infection. There have been limited seroepidemiologic studies in unselected children and adolescents following the implementation of routine CT screening as first recommended by the CDC in 1993.

Methods. Anonymized banked sera (>80%) and prospectively collected sera from children and adolescents in Brooklyn, NY, were tested for anti-CT IgG via a validated enzyme immunoassay. Serum samples were divided by collection years: Group 1 (1991–1995, prescreening) and Group 2 (2012–2015, post-screening). Infants <1 year of age were excluded due to interference of maternal antibody. Maternal screening and CT infection rates during pregnancy were determined via a retrospective review of 200 random charts (2016–2017). Statistical analysis by Fisher’s exact test.

Results. 297 serum samples were identified (age range 1–20 years). 18.5% (10/54) of subjects ≤10 years of age in Group 1 tested positive for anti-CT IgG, while none tested positive in Group 2 (0/55), P = 0.006. Children >10 years had a prevalence of 10.3% (3/29) in Group 1 and 7.5% (12/159) in Group 2, P = 0.7. Maternal screening rate was estimated at 95.5%, with 100% screened if <25 years of age. The rate of maternal screening and CT infection rates during pregnancy were determined via a retrospective review of 200 random charts (2016–2017). Statistical analysis by Fisher’s exact test.

Conclusion. CT screening during pregnancy has resulted in a dramatic decrease of perinatal CT infection. There has been limited seroepidemiologic studies in unselected children and adolescents following the implementation of routine CT screening as first recommended by the CDC in 1993.

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2286. Risk Factors for Community-Associated Clostridium difficile Infection in Adults
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