2882. Clinical and Radiologic Manifestations of Cat-Scratch Osteomyelitis in Children
Guzl Erdem, MD;1 Loujain Shorbati, PharmD;2 Joshua Watson, MD;3 W. Garrett Hunt, MD, JD, MPH;1 Cody Young, MD;1 Milap Nahata, PharmD;2 Cristina Tomatis Sourbielle, MD;4 Katalin Korany, MD;5 Pediatrics, Nationwide Children’s Hospital and the Ohio State University School of Medicine, Columbus, Ohio; 1Pharmacy, OSU, Columbus, Ohio, 2Department of Pediatrics, Nationwide Children’s Hospital and the Ohio State University School of Medicine, Columbus, Ohio, 3Pediatrics, Nationwide Children’s Hospital and Ohio State University College of Medicine, Columbus, Ohio, 4OSU, Columbus, Ohio, 5Infectious Diseases, Nationwide Children’s Hospital, Columbus, Ohio

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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 LN involvement. Despite the 9 patients, 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 leading to inefficacy of diphtheria, tetanus, 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% (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 whoop 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 (75.5%) 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 classical symptoms of catarrhal and paroxysmal cough were absent or had 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.

Disclosures. All authors: No reported disclosures.

Lever, spleen, LAD
Vertebral or spine/pelvis Long bones bones
Treatment before admission evaluation
1 Liver, left lateral lumen
T2, S2, ischium
Femur, ilia
Skull base, 11th rib
diaphragm
Rifampin (R), doxycycline (D)
2 Bilateral inguinal
LAD
T3–5, T12, L1–2, S1, acutabulum
R, D, R, Azithromycin (A)
3 Paraspinal
and epidural abscess,
LAD
L2, T8, T11
A
R, D
4 Contiguous LAD with abscess
Humerus
MPFS/MX (T), R
A
5 Left inguinal
LAD
T11, S1–4
C, R, A
6 Psoas muscle, paraspi
nal abscess
L3, L5, S1, sacroiliitis
4’Tb
C
7 No
T3
A
8 No
T3
R

Conclusion. CSD OM has an indolent course of illness with moderate elevation of inflammatory markers. Unlike previous reports of CSD and other bacterial OM, multifocal osteomyelitis without contiguous LN involvement was common. Despite significant variations in treatment duration and antimicrobial therapy choices, all patients had clinical resolution of their CSD-associated disease.

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2283. Epidemiological Profile of Children Infected with Bordetella pertussis at Varel Santiago Children’s Hospital: a Retrospective Study
Igor Itagi Queiroz, MD, PhD;1 Manuela Gomes, ms;2 Glysson Rosa, RN, MD;2 David Aroon, MD, JD, MPH;3 A. Desiree Labeaud, MD, MS, Marcelo Rodrigues Zacarim, MD;1 Jessika Thais Da Silva Maia, MS;5 Maria Goriitti Lins, MD5 and Nilson N. Mendes Neto, MS;6,7 Universidade Potiguar, Natal, Brazil, 1Harvard Medical School, Boston, Massachusetts, 2Vanderbilt University School of Medicine, Division of Infectious Diseases, Nashville, TN, 3Pediatric Infectious Diseases, Stanford University, Stanford, California, 4Universidade Potiguar, Natal - RN, Brazil, 5Hospital Infantil Varel Santiago, Natal, Brazil, 6Extension Center, University of California, Davis, California, 7Medical School, Universidade Potiguar - Laureate International Universities, Natal - RN, Brazil

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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 phase. 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 leading to inefficacy of diphtheria, tetanus, 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% (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 whoop 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 (75.5%) 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 classical symptoms of catarrhal and paroxysmal cough were absent or had 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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