Kingella Kingae: Emerging Outbreaks in Daycare Facilities

Kimberly Iracki
kimberly.iracki@otterbein.edu

Follow this and additional works at: https://digitalcommons.otterbein.edu/stu_msn

Part of the Nursing Commons, and the Public Health Commons

Recommended Citation
https://digitalcommons.otterbein.edu/stu_msn/231
Introduction

Today’s Western countries, families are now more likely that those of past decades to include healthful teaching practices. This has led to an increase in the number of children attending daycare or some form of childcare outside the home. It is known that close quarters or semi-confined settings increase the risk of certain infections. Out of these infections, an emerging epidemic pathogen, also known as some prevalent traits, is Kingella Kingae.

The presentation of Kingella Kingae is frequently mild and vague. Such a diagnosis requires a high index of clinical suspicion. (Yagupsky, 2017). For example, patients can commonly present with bangs and symptoms:

- Headache
- Fever
- Rash
- Cough
- Coryza
- Arthritis
- Conjunctivitis

The diagnosis of K. kingae disease is established by isolation of the bacterium or a positive nucleic acid amplification test from the blood, synovial fluid, or joint fluids. (Yagupsky, 2017).

Implications for Nursing

Currently, there is a lack of specific diagnostic criteria for detecting K. kingae disease. Patients have been administrated a variety of antibiotic regimens according to protocol developed for infections caused by other bacteria.

Significance of Pathophysiology

Kingella Kingae is a Gram-negative, non-fermentative, non-motile, encapsulated bacterium. This pathogen is closely related to Neisseria gonorrhoeae and is capable of causing a wide range of clinical syndromes. (Yagupsky, 2016a).

Pathophysiology

Pathogenicity of K. kingae involves the following mechanisms:

1. Siderophores
2. Cytokine production
3. Virulence factors
4. Adhesion molecules

Who is at Risk?

Intimate contact between children—and playmates can transmit the K. kingae organism that colonizes in the pharynx. Children can develop either invasive or asymptomatic disease:

- Invasive disease: typically occurs in children with underlying systemic disorders or complications of the underlying disease. However, the exact mechanisms are not known. (Yagupsky, 2016a).
- Asymptomatic disease: occurs in children with no underlying systemic disorders or complications of the underlying disease. However, the exact mechanisms are not known. (Yagupsky, 2016a).

Signs and Symptoms

The signs and symptoms of K. kingae disease are often non-specific and can mimic other common childhood illnesses, such as the common cold or the flu. Common symptoms include:

- Fever
- Cough
- Rash
- Conjunctivitis
- Arthritis
- Enanthem

References Cited


Additional References


Kingella Kingae: Emerging Outbreaks in Daycare Facilities

Kimberly Tacki, BSN, RN, CCRN, SRNA
Otterbein University, Westerville, Ohio

In today’s Western countries, families are now more likely that those of past decades to include healthful teaching practices. This has led to an increase in the number of children attending daycare or some form of childcare outside the home. It is known that close quarters or semi-confined settings increase the risk of certain infections. Out of these infections, an emerging epidemic pathogen, also known as some prevalent traits, is Kingella Kingae.