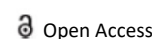




PERSPECTIVE



Types of *Haemophilus Influenzae* Infection and its Causes and Mode of Transmission

Citter Vali*

Department of Veterinary Science, University of Turin, Turin, Italy

ARTICLE HISTORY

Received: 04-Oct-2022, Manuscript No. JCMEDU-22-77567; Editor assigned: 07-Oct-2022, PreQC No. JCMEDU-22-77567 (PQ); Reviewed: 21-Oct-2022, QC No. JCMEDU-22-77567; Revised: 28-Oct-2022, Manuscript No. JCMEDU-22-77567 (R); Published: 04-Nov-2022

Description

Haemophilus influenzae (formerly known as Pfeiffer's *Bacillus* or *Bacillus influenzae*) is a Gram-negative coccobacillary facultatively anaerobic capnophilic pathogenic bacterium of the Pasteurellaceae family.

Some have claimed that this bacterium is the cause of the flu. *H. influenzae* was first described in 1892 by Richard Pfeiffer during an influenza pandemic when he mistakenly described *Haemophilus influenzae* as the causative microbe, which explains why the bacterium retains the "influenza" in its name *H. influenzae* which is responsible for a wide range of localized and invasive infections, but influenza is caused by viruses. This species was the first free-living organism to have its entire genome sequenced. *Haemophilus influenzae*, or *H. influenzae*, is a group of bacteria that cause various types of infections in infants and children. *H. influenzae* most commonly causes ear, eye, or sinus infections and pneumonia. In rare cases, your child may develop a more serious strain of the bacteria called *Haemophilus influenzae*.

Types of *Haemophilus influenzae*

Pneumonia: Pneumonia is an inflammatory disease of the lungs that mainly affects the small air sacs known as alveoli. Symptoms usually include some combination of a productive or dry cough, chest pain, fever, and difficulty breathing. The severity of the condition is variable.

Pneumonia is usually caused by viruses or bacteria, less often by other microorganisms. Determining the responsible causative agent can be difficult. Diagnosis is often made based on symptoms and physical examination. A chest X-ray, blood test, and sputum culture can help confirm the diagnosis. The disease can be classified depending on where it was acquired, for example, pneu-

monia acquired in an inpatient setting, in a hospital, or as a result of medical care.

Risk factors for pneumonia include cystic fibrosis, chronic obstructive pulmonary disease (COPD), sickle cell disease, asthma, diabetes, heart failure, a history of smoking, a poor ability to cough (such as after a stroke), and a weak immune system.

Vaccines are available to prevent certain types of pneumonia (such as those caused by *Streptococcus pneumoniae*, the bacteria associated with influenza or COVID-19). Other prevention methods include washing hands to prevent contamination, not smoking, and social distancing.

Bloodstream infections: Blood stream infections (BSIs), which include bacteremia when the infections are bacterial and fungal infections when the infections are fungal, are infections that are present in the blood. Blood is usually a sterile medium, so detection of microbes in blood (most often by blood culture) is always abnormal. Blood infection is different from sepsis, which is the host's response to bacteria.

Bacteria can enter the bloodstream as a serious complication of infections (such as pneumonia or meningitis), during surgery (especially when mucous membranes such as the gastrointestinal tract are damaged), or from catheters and other foreign bodies entering an artery or vein (including drug abuse during intravenous administration). Temporary bacteremia can occur after dental procedures or brushing.

Bacteremia can have several important health consequences. The immune response to the bacteria can cause sepsis and septic shock, which has a high mortality rate. The bacteria can also spread through the blood to other parts of the body (called the hematogenous route), caus-

Contact: Citter Vali, E-mail: valicitter@gmail.com

Copyrights: © 2022 The Authors. This is an open access article under the terms of the Creative Commons Attribution NonCommercial ShareAlike 4.0 (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).

ing infections from the original site of infection, such as endocarditis or osteomyelitis. Bacteremia is treated with antibiotics, and in high-risk situations, antibiotic prophylaxis can be used.

Causes

Haemophilus influenzae is the name given to any infection caused by *H. influenzae* bacteria. There are 6 distinct types of *H. influenzae* as well as other *H. influenzae* that are classified as non-typeable. People are most familiar with *H. influenzae* type b or Hib.

These bacteria live in people's noses and throats and are usually harmless. However, sometimes the bacteria can travel to other parts of the body and cause an infection.

Experts don't know how long it takes after *H. influenzae* enters the body for someone to get sick. However, it may only take a few days before symptoms appear.

How it spreads

People spread *H. influenzae*, including Hib, to others through the respiratory tract. Infected people spread the bacteria when they cough or sneeze, which creates small droplets containing the bacteria in the respiratory tract. Other people can get sick if they breathe in these drops. People who are not sick but have bacteria in their nose and throat can still spread the bacteria. This is how *H. influenzae* spreads most often. The bacteria can also spread to people who have close or prolonged contact with a person with *H. influenzae*.