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Brief Note on Diphtheria Causes, Treatment and it's Vaccines

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ABSTRACT

Diphtheria can be prevented by vaccination of children (D-tap) and non-immunized adolescents and adults (T dap) with the diphtheria / tetanus / pertussis vaccine. After a single dose of Tap, adolescents and adults should receive an additional Tap or diphtheria / tetanus vaccination (Td) every 10 years. Most cases of diphtheria occur in people who have not been vaccinated at all. It is also advisable to vaccinate all pregnant women.

Keywords: Vaccination; Toxin; Immunization

DESCRIPTION

Diphtheria is a communicable disease caused by *Corynebacterium diphtheria*. Most infections are asymptomatic or have a mild clinical course, but in some outbreaks, more than 10% of people diagnosed with the disease can die. Signs and symptoms vary from mild to severe

It spreads easily and quickly and mainly affects the nose and throat. Children under the age of 5 and adults over the age of 60 are at particular risk. People living in cramped or dirty, places can be effected by the Diptheria. Signs and Symptoms of Diphtheria In the early stages, diphtheria can be mistaken for sore throat. Mild fever and swelling of the glands in the neck are other early symptoms. Toxins or toxins produced by bacteria can result in a thick coating (or membrane) on the nose, throat, or airways.

This distinguishes diphtheria infections from other more common infections that cause sore throat (such as streptococcus). This coating is usually flaky gray or black and can cause dyspnoea and dysphagia. For diphtheria beyond streptococcal pharyngitis, the toxin spreads through the bloodstream. This can lead to life-threatening problems that can affect other organs such as the heart and kidneys.

Vaccine and immunization

Vaccine and immunization T dap vaccine for 2, 4 and 6 months after birth Tdap vaccine for 12 to 18 months Tdap vaccine for 11 to 12 years After that, Tdap or Td booster is given every 10 years, and Tdap is given in the second half of pregnancy. The vaccines protect all the pregnant women without being effected by the Diptheria.

Bacteria that cause diphtheria can produce toxins. This toxin damages tissues in the immediate vicinity of the infection, usually the nose and throat. At this point, the infection creates a tough gray film composed of dead cells, bacteria, and other substances. This membrane can interfere with breathing.

A thick layer of gray matter covers the back of the throat and makes breathing difficult. Symptoms include pharyngitis , fever, swollen lymph nodes, and weakness. Treatment includes antibiotics and antitoxins that neutralize diphtheria toxins.

Diphtheria toxin can spread throughout the bloodstream and damage other tissues in the body. For example, it can damage the heart muscle and cause complications such as myocardial inflammation (myocarditis). Heart damage from myocarditis can be mild or severe. In the worst case, myocarditis can lead to heart failure and sudden death.

The Diphtheria vaccine is usually combined with a vaccine against tetanus and whooping cough (whooping cough). The three-in-one vaccine is known as the diphtheria, tetanus, and pertussis vaccine. The latest version of this vaccine is understood because the D Tap vaccine for youngsters and therefore the T dap vaccine for adolescents and adults.

Human-to-human transmission of diphtheria is usually transmitted in the air when an infected person coughs or sneezes. Inhaling particles released by an infected person can lead to infection. Contact with skin lesions can also lead to diphtheria infections, but this is rare. Indirect infections can also occur. If an infected person touches a surface or object, the bacteria remain and can survive. Some evidence also suggests that diphtheria can become a zoonotic disease, but this has not yet been confirmed. A corynebacterium ulcer has been found in some animals, indicating a potential zoonotic disease.

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CONCLUSION

The disease can remain manageable, but in more severe cases, the lymph nodes in the neck may swell, making it difficult to breathe or swallow. People at this stage should see a doctor immediately, as obstruction of the throat may require intubation or tracheostomy. Arrhythmias occur early in the disease or weeks later and can lead to heart failure. Diphtheria can also cause paralysis of the eyes, throat, pharynx, or respiratory muscles. Severely ill patients are taken to the intensive care unit of a hospital and given diphtheria antitoxin (consisting of antibodies isolated from the serum of horses infected with diphtheria toxin). Antitoxins do not neutralize toxins that are already bound to tissues, so delaying their administration increases the risk of death. Therefore, the decision to administer diphtheria antitoxin is based on clinical diagnosis and should not wait for laboratory confirmation.