

Difference Between Whooping Cough and Croup

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Key Difference – Whooping Cough vs Croup

Respiratory tract infections can be mainly divided into two categories as [upper respiratory tract infections](#) and lower respiratory tract infections. Upper respiratory tract infections are commonly seen in children and are mostly caused by viruses. Croup and whooping cough are upper respiratory tract infections frequently seen during the childhood. **Croup is of a viral origin, and it gives rise to mucosal inflammation of the airways, resulting in a barking cough whereas whooping cough or pertussis is of a bacterial origin and has a characteristic paroxysm of coughing with a whoop.** This is the key difference between whooping cough and croup.

What is Croup?

Croup, which is also known as **laryngotracheobronchitis**, is associated with mucosal [inflammation](#) and increased secretions. But what is critical is the [edema](#), which causes further narrowing of the [trachea](#) in children. The most severe condition can be seen in children under 3 years of age. The commonest causative agent of croup is Para influenza virus. Other viruses such as human metapneumovirus, [RSV](#), [measles](#), adenovirus, and [influenza](#) can also give rise to the same clinical condition.

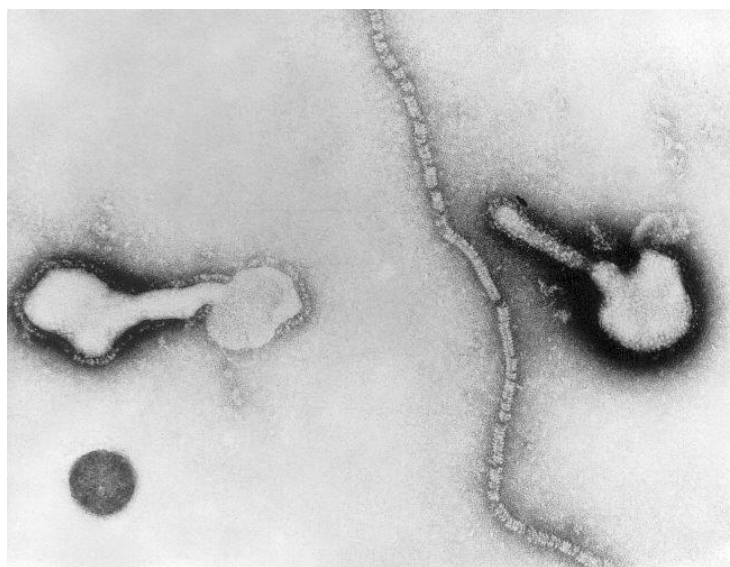


Figure 01: Para influenza virus

Clinical Features

The illness is characterized by a barking cough, hoarse voice, and [stridor](#). Coryzal symptoms and fever may also be present. Symptoms may worsen at night. Recessions of soft tissues of neck and abdomen may occur due to the continuous airway obstruction. Chest recessions and stridor may disappear when the child is at rest if the airway inflammation has subsided. Respiratory distress and cyanosis can also be seen in severe cases.

Management

In croup, the child can be usually managed at home. But parents need to closely observe the child for any signs of severity.

Hospitalization is necessary if the patient has the following indications;

- severe stridor at rest
- progressive stridor
- respiratory distress
- [hypoxia](#)
- restlessness
- reduced sensorium
- uncertain diagnosis

Steam inhalation is used widely, but the improvement of symptoms is doubtful. Oral prednisolone, oral dexamethasone and nebulized steroids (budesonide) are usually administered as anti-inflammatory agents. Nebulized epinephrine with oxygen face mask can give relief in severe obstruction of the upper airway. It is important to make sure that the fluid intake of the patient is adequate. Close monitoring is necessary after the administration of epinephrine since symptoms can recur when about two hours have elapsed from the administration of the drug.

What is Whooping Cough?

Whooping cough, which is also known as **pertussis** is a global public health problem. It is a disease of childhood, with 90% of the cases occurring below the age of 5 years. Pertussis is highly contagious and spreads by the respiratory droplets released when the patient coughs. It can cause [epidemics](#) in every 3-4 years due to the accumulation of a cohort of children with no immunity. Since

there is no animal reservoir of the [pathogen](#) causing pertussis, asymptomatic adults play a major role in the disease transmission. Pertussis is caused by a gram negative coccobacillus, *Bordetella pertussis*. A milder form of the disease is caused by *B.parapertussis* and *B.bronchiseptica*. Colonization of the pathogen in the [pharynx](#) is aided by a special toxin which is produced by the pathogens themselves. The clinical features of the disease are thought to be immunologically mediated. Pertussis is more common and severe in females than in males.

Clinical Features

Basically, there are 3 phases of the disease,

- catarrhal phase
- paroxysmal phase
- convalescent phase

The patient is highly contagious during the catarrhal phase. In 90% of the cases, cultures of the respiratory secretions become positive during this phase. Coryzal symptoms, malaise, and conjunctivitis can be observed.

After about one week, the paroxysmal phase which is characterized by the paroxysms of cough, followed by an inspiratory whoop, begins. Whoop is seen in young individuals due to the obstruction of airways by secretions and edema. It is usually worst at night and terminates with vomiting. Ulceration of frenulum, conjunctival suffusion, and petechiae are other signs to look for during this stage of the disease.

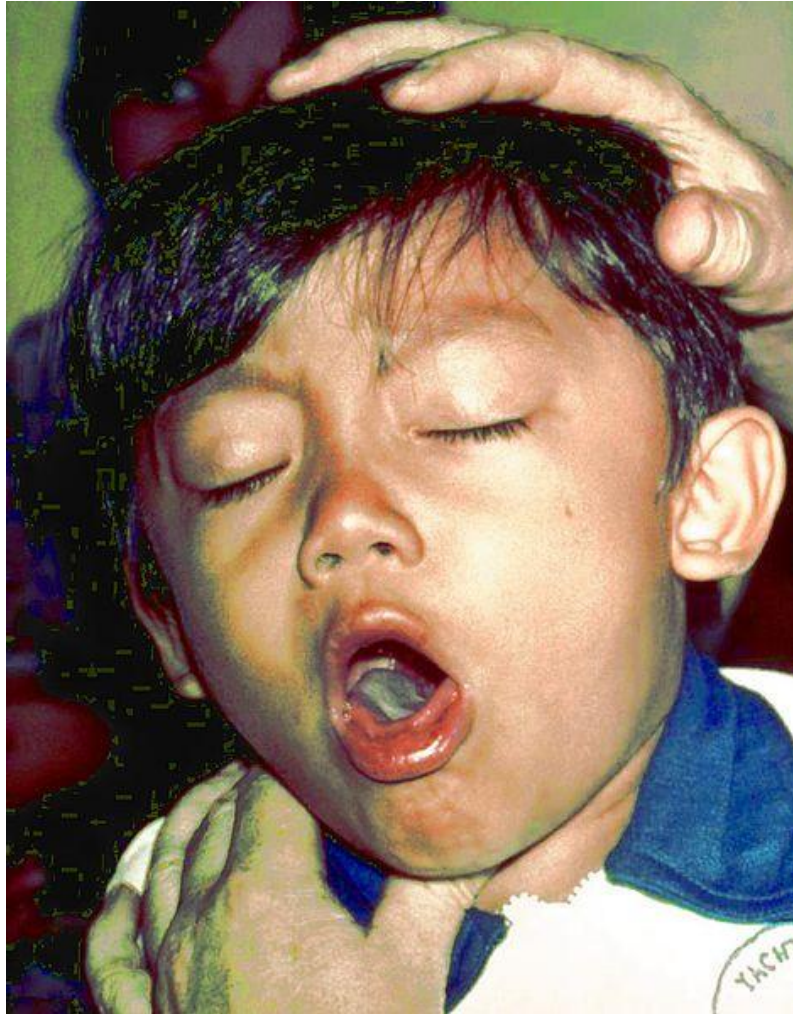


Figure 02: Whooping Cough

The symptoms gradually subside during the convalescent phase.

Complications

- [pneumonia](#)
- atelectasis
- rectal prolapse
- [inguinal hernia](#)

Diagnosis

Although it is easy to arrive at a tentative diagnosis due to the presence of unique symptoms, in order to confirm the diagnosis it is necessary to culture a nasopharyngeal swab.

Management

- Macrolides will decrease the severity of the disease if given during the catarrhal phase.
- Azithromycin for 5 days is usually used.
- Close contacts can receive prophylactic erythromycin.

Prevention

As pertussis is highly contagious, affected patients should be isolated. Immunization can easily prevent pertussis.

What are the similarities between Whooping Cough and Croup?

- Whooping cough and croup are upper respiratory tract infections.
- Both conditions are commonly seen among children.
- Airway mucosal inflammation and edema are the major pathological changes in both pertussis and croup.

What is the difference between Whooping Cough and Croup?

Whooping Cough vs Croup	
Whooping cough is a bacterial disease characterized by convulsive coughs followed by a whoop, mainly affecting children.	Croup is a type of infection of the upper airway typically found in children and caused by a virus.
Causative Agent	
Causative agent is a bacteria.	Causative agent is a virus.
Main Symptoms	
The patient develops a characteristic paroxysm of whoop with a cough.	The patient develops a barking cough
Contagiousness	
This is highly contagious; thus, affected patients should be isolated.	This is not contagious.

Immunization

Immunization is available for the prevention of the disease.

Immunization is not available.

Treatment

Antibiotics are used in treating whooping cough.

Anti-inflammatory drugs are used in the management.

Summary – Whooping Cough vs Croup

The main difference between whooping cough and croup is their cause; whooping cough has a bacterial origin whereas croup has a viral origin. Since these two respiratory infections are highly contagious (especially pertussis) it is important to get vaccinated and take other precautionary steps to minimize the spread of pathogens and to prevent the disease transmission.

References:

1. Lissauer, Tom.Clayden, Graham., eds. Illustrated Textbook Of Paediatrics. Edinburgh : Mosby/Elsevier, 2007. Print.
2. Gladwin, Mark, and Bill Trattler. Clinical Microbiology Made Ridiculously Simple. Miami: MedMaster, 2003. Print.
3. Kumar, Parveen J., and Michael L. Clark. Kumar & Clark clinical medicine. Edinburgh: W.B. Saunders, 2009. Print.

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