# Common Cold Syndrome

Common Cold Syndrome is a general term of acute inflammatory disease of the upper respiratory tracts such as nasal cavity, tonsils, pharynx and larynx etc. Common Cold Syndrome includes rhinitis, tonsilitis, pharyngitis, laryngitis (including croup), pharyngo-laryngitis etc. So, they primarily belong to one same disease group. Sometimes Influenza (the flu) and sinusitis are summerized to the common cold syndrome. For example, you may have different explanation about your disease in different department (of the clinic) such as internal medicine, pediatrics and otolaryngology etc., then there are different therapeutic procedure and treatment period in each. Subjective Symptoms

Subjective symptoms are variously related with the region of upper respiratory tracts such as snivel, nasal obstruction, sneezing, sore throat (pain, thirst feeling and hoarseness), cough, sputa, headache, fever, general malaise (laziness), muscle pains, arthralgia (joints pain) etc. troubles such as nausea, vomiting, diarrhea and abdominal pain etc are often recognized with various subjective symptoms mentioned above. In influenza infection (flu), these subjective symptoms are seen acutely and strongly. When the inflammation foci have spread to the lower respiratory tracts such as trachea, bronchi and lung, moist cough, viscous and colored sputa (yellowish - greenish), and stridor etc will arise. Then, we have to consider bronchitis and pneumonia. The proverb says, "A cold may develop into all kinds of illnesses.", so you have to pay attention to change of your subjective symptoms when you have had a cold. Generally, the patients with common cold syndrome will get better within a week. Please notice that the symptoms of asthmatoid bronchitis or allergic bronchitis (continuous cough without dyspnea) and the primary symptoms of Hepatitis-A are similar to those of common cold syndrome, so you should consult your doctor if you are anxious about your disorders.



## Cause

The change of the temperature (coldness) and non-infectious factor such as allergy can be a cause of common cold syndrome, but main cause of common cold syndrome is viral infection to the respiratory organs. They are Rhinovirus, RS virus, Influenza virus, Corona virus, Adenovirus, ECHO virus and Coxsackie virus etc. The caused virus to the digestive disorders are SRSV (Small Round Shape Virus) and Rotavirus which is usually seen in infants. Among adults, Rhinovirus is commonly seen, and RS virus, Parainfluenza virus and Corona virus are common viruses among children. Influenza infection

(acute and severe symptoms are characteristic), Rhino virus infection (rhinitis like), RS virus infection (also rhinitis like) and Parainfluenza virus infection are commonly prevalent in winter and spring. Adenovirus infection, Enterovirus infection, Coxsackie virus infection and ECHO virus infection are commonly seen in summer (it is called hot weather cold). Every virus has the affinity with infection region of the respiratory organs to some degree, but it is difficult to identify the caused virus only by clinical symptoms, and it needs to segregate each virus by genetic diagnosis procedure such as PCR or by immuno-serological examination etc using nasal secretion or tissue from throat and serum in order to identify the virus exactly. However, it is not significant to identify the caused virus except Influenza virus and Adenovirus in daily medical work. Please ask details to your doctor.

On the other hand, Group-A hemolytic streptococcus infection is important in the cases of bacterial tonsilitis and pharyngo-laryngitis. This infection can be diagnosed by quick test using agglutination, white blood cells counting and CRP test. We can do this quick test at our clinic. Other caused bacteriae are staphylococcus and Haemophilus influenzae. Anti-biotics is effective to bacterial infection.

#### Treatment

To keep room warm and humid, taking rest, enough rehydratiion and taking nourishing food are the principle of treatment for common cold syndrome. And please take adequate sleep and do not overwork. Especially in a case of aged person or a case with complications such as cardiac diseases and diabetes etc should take more adequate resting. We usually carry out the symptomatic therapy for the present symptoms. Most of the cases of common cold syndrome by viral infection except influenza will improve within a week. Antibiotics should be used in the case of aged person, a case with complication, a case with immunodeficiency and a case of infant, because bacterial infection can easily be complicated with these cases. Clinical symptoms have not been improved for more than a week and when the complication by bacterial infection is strongly suspected because, blood test such as white blood cell counting, CRP test, liver function test (GOT and GPT etc), and Chest X-ray examination should be considered.

When flu (Influenza virus infection) is suspected, quick test should be considered, and anti-influenza virus drug (neuraminidase inhibitor: Brand name Tamiflu 75) should be prescribed at once (within 48 hours recommended) in a case with positive reaction to the quick examination. You can undergo this quick examination for Influenza virus infection (both type A and B) at our clinic. Influenza virus of both type A and B can be detected using nasal secretion within 15 minutes. About medicine, acetaminophen should be used as antipyretics in cases of Influenza infection, because other

antipyretics have a possibility to induce Rye syndrome. Also, non-steroidal anti-inflammatory drug has a possibility to induce fatal attack to 6-7 % of the patients under treatment of asthma bronchiale. It is called the aspirine-induced-asthma. The important matter is that you should consult a doctor, and please have proper treatment with pertinent examinations.

Gargle and hand-washing are the most effective method to prevent common cold syndrome due to viral infection.



Exacerbation of common cold and advance to lower respiratory tracts

In cases with persistent symptoms or cases that symptoms have been deteriorating, its inflammation may have advansed to the lower respiratory tracts (bronchus and lung). Severe case of common cold often complicates bronchitis, bronchiolitis and pneumonia.

#### 1. Acute Bronchitis

Acute bronchitis is an inflammatory disease of bronchus, and it occurs in succession of acute upper respiratory tracts infection namely common cold syndrome. The symptoms are fever, cough, sputa (yellowish or greenish viscous sputa) and stridor etc. Moist rales can be audible on the chest by suscultation. Usually, there is no infiltrative shadow (consolidation) in Chest X-ray film in a case of bronchitis. But sometimes we can detect the thickning of bronchus wall in chest X-ray film, and it is called "bronchial cuff" by medical term and this is the only finding of X-ray film in case of bronchitis (without pneumonia).

More than 90% of its cause is viral infection such as Influenza, Parainfluenza, Adenovirus and RS virus etc. But bacterial infection such as pneumococcus and Haemophilis influenzae are also recognized. In cases with severe cough, Mycoplasma and Chlamydia are often detected, and they can be a cause of pneumonia.

Symptomatic therapy is the main treatment way in cases of viral infection same as cases of upper respiratory tracts infection. According to the symptoms, additional medicine such as antitussives, expectorants, bronchodilator and antipyretics etc are used. You should consult a doctor of internal medicine earlier.

In a case of bronchiolitis, antibiotics will usually be prescribed.

To keep room warm and humid, taking rest, enough rehydratiion and taking nourishing food are necessary same as common cold syndrome.

2. Asthmatoid bronchitis (allergic bronchitis) • CVA (Cough Variant Asthma)

Primarily, asthmatoid bronchitis is a bronchitis with stridor, and it is seen in infants and babies. In adults, it is sometimes called allergic bronchitis. They are not the disease name but mean pathologic state. They include bronchitis, bronchiolitis, retention of secretion in trachea, and asthma with infection.

The cause is almost same as acute bronchitis, and treatment is also same as acute bronchitis basically.

## 3. Pneumonia

Pneumonia seen at the out-patient clinic is called city pneumonia and it is differntiated from nosocomial infection pneumonia occurred in the hospital. Bacterial pneumoniae caused by pneumococcus and Haemophilis influenzae infection should be distinguished from primary atypical pneumoniae caused by mycoplasma and chlamydia infection. In treatment of bacterial pneumoniae, the possibility of penicillin-resistant Streptococcus pneumoniae (PRSP) should be considered in the cases of more than 65 years old, presence of alcohol dependence, presence of immunodeficiency, complications and history about medication of -lactam antibiotics within the past 3 months.

# Common Cold Syndrome in Children

Common cold syndrome is the disease of high frequency among children in daily medical work, and most of its cause is viral infection. Major symptoms are fever, snivel, cough, appetite loss and dullness etc, and primarily they are almost same as thoes in adults. A mother sometimes does not notice her baby's fever-up until she takes her baby to the clinic with a symptom that a baby has been a bad humor. Children have many opportunities to be infected in day nursery, kindergarten and school in prevalent season.

Infants and babies will easily be led into dehydration and become exhausted when they have digestive troubles as vomiting and diarrhea with high fever. Therefore, oral rehydration and attentions to meal are necessary according to the age. Making a record about fever and its pattern, about volume and frequency of taking water, and about frequency of urination will give useful information for diagnosis and treatment. In a case with severe dehydration due to high fever, vomiting and diarrhea, when the patient cannot take water and food orally, drip infusion therapy is indispensable.



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