

Jian Wang

1.1 Definition

Influenza, abbreviated as flu, is an acute respiratory tract infection caused by influenza virus. And it is characterized by strong infectivity and rapid transmission.

Radiological studies on influenza concern description and evolution of lesions caused by invasion of influenza virus and its subtypes, which are based on the clinical staging of influenza and the respective pathological features.

1.2 Clinical Manifestation

After infection of influenza virus, the patients typically experience acute onset of high fever, systemic soreness, significant fatigue and mild respiratory symptoms. Acute onset of high fever is the most typical symptom of influenza and also the initial symptom of influenza. The patients usually sustain high fever that persists for 3–5 days, with a body temperature of up to 39–40 °C. Influenza is highly prevalent during autumns and winters whose occurrence aggravates many potentially existing diseases, such as heart and/or lung diseases, and may be further complicated by pneumonia, bronchitis, rhinitis, pharyngitis, otitis media, and even meningitis or encephalitis. Therefore, its mortality rate is high.

1.3 Diagnosis and Differential Diagnosis

The clinical manifestations of influenza are not typical, so it is very easy to be confused it with common cold or acute respiratory infection. Therefore, influenza needs to be

diagnosed by integrating epidemic history and clinical symptoms. Check Table 1.1 for key points of differential diagnosis of influenza and common cold.

1.4 Key Points in Treatment

1.4.1 Common Symptomatic Therapy

The patient should be appropriately quarantined in a well ventilated and sterilized room. And the patient should receive bed rest, drink more water, and be supplemented with appropriate nutrition and vitamins. After intake of food, the oral cavity should be rinsed with warm boiled water or warm water with salt. The patient should raise awareness of keeping oral cavity and nasal cavity clean. If systemic symptoms are obvious, anti-infection therapy should be administered.

1.4.2 Anti-viral Therapy

Anti-viral therapy should be administered early.

1.4.3 Use of Antibiotics

The cold is commonly caused by virus. When the symptoms are serious or complications occur, timely clinic visit is recommended. If bacterial infection or complication is definitively diagnosed, antibiotics can be used with professional guidance.

J. Wang
Affiliated First Hospital, Xinjiang Medical University,
Urumuqi, Xinjiang, China
e-mail: jeanw1265@163.com

Table 1.1 Key points for differential diagnosis of influenza from cold

Key points	Influenza	Cold
Infectivity	Class C infectious disease	Non-infectious disease
Seasonal prevalence	Obvious seasonal prevalence (from Nov. to Mar. of the following year in northern China)	No obvious seasonal prevalence
Fever	Commonly high fever (39–40 °C), possibly with chill	No/mild/moderate fever, with no chill
Duration of fever	3–5 days	1–2 days
Systemic symptoms	Headache, systemic muscle pain and soreness, fatigue	Less symptoms or asymptomatic
complications	Otitis media, pneumonia, and even meningitis or encephalitis	Rare
Illness course	5–10 days	1–3 days
Mortality	High, mostly due to acute aggravation of primary diseases such as lung disease, cardiovascular or cerebrovascular diseases caused by influenza	Low